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TABLES
DE SINUS
TANGENTES
ET
SECANTES.

TABVLÆ SINVVM TANGENTIVM SECANTIVM

ad Radium 10000000

CVM

TRIGONOMETRIA

Triangulorum planorum

Studio

FRANCISCI SCHOTEN

Math. Prof. Lugd. Bat.

BRVXELLIS

Apud LamBertum Marchant sub signo Boni pastoris

1683

TABLES DE SINUS TANGENTES ET SECANTES

Ad Radium 10,000,000.

Avec une methode de resoudre tres-facilement par leur moyen tous les Triangles Rectilignes & Spheriques.

PAR

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Reveuës & exactement Corrigées en cette Edition,

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BRIEVE INSTRUCTION DES TABLES.

CEs Tables ne ſont qu'un amas de nombres, leſquels aprés eſtre calculez ſont icy redigez en ordre en trois colomnes, où ſe trouve aſſez prés la raiſon des coſtez, ou bien les formes de tous les Triangles Rectangles plans, depuis le moindre juſqu'au plus grand, leſquelles ſelon la grandeur de leurs angles par un inſtrument convenable ſe pourroient mettre ſur une ligne ou baſe commune.

Et comme leur uſage eſt pour par iceluy ſur la campagne par le moyen d'un coſté & des angles connus, de ſupputer les coſtez inconnus ou inacceſſibles de tous les Triangles Rectangles de meſme forme, & conſequemment auſſi de tous les autres Triangles, tant Amblygones qu'Oxygones.

Et puis que pour meſurer les an-

angles on ne peut faire d'inſtrument portatif qui aye ſes departitions moindres aux minutes : quoy conſideré on a fait ces tables ſelon la capacité d'iceux, à ſçavoir en telle quantité de Triangles Rectangles, que ſur le quadran ou quart de cercle ſe peut faire de minutes, moins un, tellement que les premiers nombres monſtrent la forme du triangle Rectangle qui a l'angle aigu adjacent à ladite baſe commune de 1. minute, les ſuivants de 2. puis aprés de 3. &c. progreſſivement juſques au dernier, duquel l'angle aigu eſt de 89 deg. 59 min.

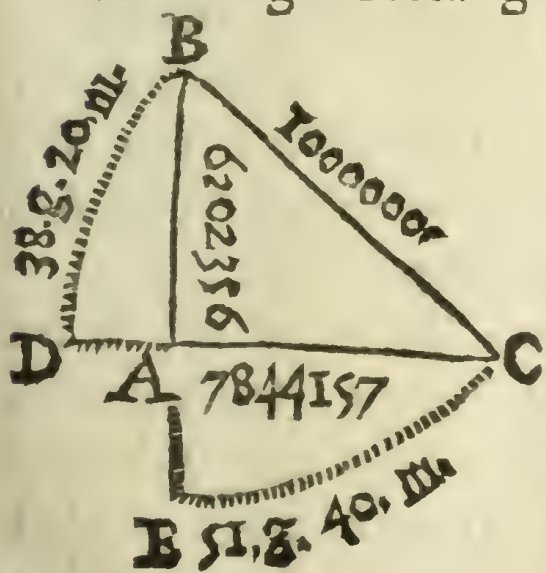
Or pour la longueur de cette baſe commune (qu'on appelle en la computation & uſage des tables, *Raid*, ou *demy Diametre*, à cauſe d'un arc qui eſt deſcrit pour plus grand éclairciſſement dans le meſme intervalle hors le ſommet de l'angle aigu, denotant la grandeur du meſme angle) eſt pris 10000000, nombre choiſi pour l'un des plus propres à la conſtruction & uſage des tables, ou qui eſt le plus facile à djouſter, ſouſtraire, multiplier,

&

& diviſer par iceluy: & pour plus ample uſage ces nombres ſont calculez en telle ſorte, que la forme de chacun triangle peut eſtre par iceux trouvée en deux manieres: & ce premierement ſi on prend pour Raid le coſté à l'oppoſite de l'angle droit. Secondement, l'un ou l'autre des autres coſtez, d'où vient que la proportion des autres coſtez du triangle apparent chaque fois avec divers nombres : lors les nombres de la premiere colomne monſtrent les deux autres coſtez ſelon la premiere; & la ſeconde colomne, le premier ; & la tierce colomne le ſecond coſté, ſelon la ſeconde maniere.

Comme par Exemple :

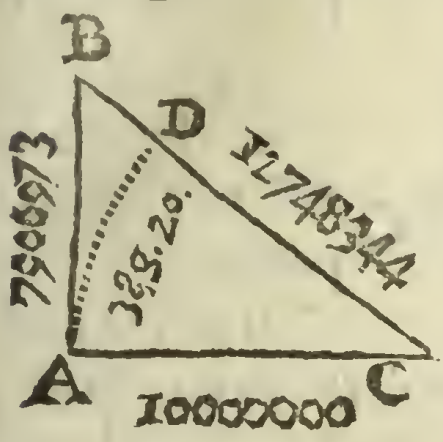
Au triangle rectangle ABC dans la figure ſuivante, ſelon la premiere maniere ſoit BC (coſté à l'oppoſite de l'angle droit A) pris pour Raid, ou 10000000,



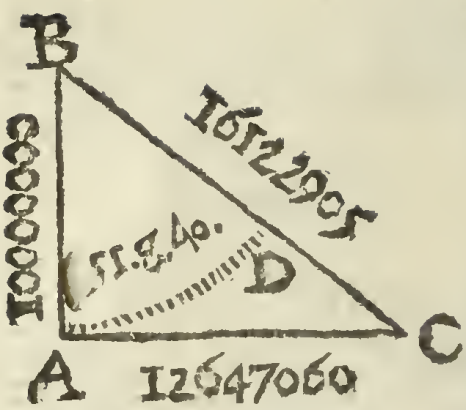
10000000, à cauſe de l'arc BD fait du meſme intervalle BC vis à vis l'angle C, denotant ou comprenant la grandeur du meſme angle C, qui eſt de 38 deg. 20 min. ou de l'arc CE, denotant la grandeur de l'angle B de 51 deg. 40 min. alors les autres coſtez ſeront nommez par les Mathematiciens *Sinus* : à ſçavoir, chacun ſelon la grandeur de ſon arc ou angle oppoſite : c'eſt à dire, AB *Sinus* de l'arc BD ou angle C de 38 deg. 20 min. & AC *Sinus* de l'arc CE ou angle B, de 51 deg. 40 min. or ſoit dans les tables ſous le titre de *Sinus*, vis à vis de 38 deg. 20 min. trouvé pour le nombre du coſté AB 6202356, & au coſté de 51 deg. 40 min. pour le nombre du coſté AC 7844157 parties du Raid ou coſté BC, tellement que ſelon la premiere maniere la forme du triangle ABC ſoit deſcrit par BC 10000000, AB 6202356, & AC 7844157. parties.

Selon la ſeconde maniere, là où un des coſtez faiſant l'angle droit, comme icy AC, eſt pris pour demy-diametre ou 10000000, apres qu'en

qu'en cette longueur hors le poinct de l'angle C, où on a fait ou imaginé l'arc AD, denotant la grandeur de l'angle C, lequel touche le costé AB en A, & coupe BC en D, partant ils ont nommé AB *Tangente*, & BC *Secante*, à sçavoir du mesme arc AD ou angle C de 38 deg. 20 min. les parties donc de AB se trouvent dans les tables sous le titre tangent au costé de 38 deg. 20 min. de 7906973, & sous le titre de *secans* pour le costé BC 12748344 parties, tellement que derechef la forme de ce triangle est connu, à sçavoir AC estant 10000000, sera AB 7906973, & BC 12748344 part.



Ou autrement, si on prend l'autre costé AB faisant l'angle droit pour raid ou 10000000, aprés avoir fait l'arc AD, denotant l'angle B, qui est 51 deg. 40 min. duquel AC est tangent, & BC secant,



cant, alors se trouve pour le costé AC 12647060, & pour le costé BC 16122905 parties.

Il arrive souvent qu'on requiert deux *Sinus*, dont les angles font ensemble un angle droit ou 90 deg. à cette fin, & pour la commodité ils seront icy joints l'un au costé de l'autre, comme aussi deux telles tangens & secans, chacun sous son titre, tellement donc qu'en la premiere moitié des tables, à sçavoir du commencement jusqu'à 45 deg. on cherchera les nombres d'enhaut en bas, & en la seconde colomne qui est de 45 deg. jusques à 90 deg. au contraire d'embas en haut.

Nous avons icy mis ces tables au raid de 10000000, afin qu'ils fussent ainsi justement commodes pour calculer par icelles jusques à une certitude suffisante les plus grandes distances, eaux, marais, & bois qu'il sera possible de comprendre

dre par l'œil en la pratique : Et comme pour la calculation des moindres figures elles seroient grandes assez au raid de 100000 (comme elles sont publiées par divers Mathematiciens) à cette fin nous avons distingué les deux derniers chapitres de chaque nombre des autres par un accent, ayant regard en la calculation que quand ces deux derniers chifres font plus qu'un demy ou 50, qu'il les faut prendre pour un entier, mais estans moindres, on n'adjouste rien.

Et d'autant que ces tables ont esté auparavant mises en lumiere par plusieurs autres personnes ; pour cette cause mon labeur sembleroit par avanture estre inutile, mais d'autant que j'ay trouvé celles qui sont les plus usées, & qui me sont encore venuës en main, fort pleines de fautes, mesmes aussi celles qui sont recommandées d'estre sans quelques vices: & comme cela est une chose insupportable en cette affaire-cy, où chacun qui en use devroit estre asseuré de leur perfection ; j'ay corrigé avec beaucoup de travail toutes

les

les fautes par le moyen des differences, & ce pour mon particulier, lesquelles à la requeſte d'aucuns amateurs, j'ay mis ſous la preſſe, avec tel ſoin & diligence que touchant l'entiere correction d'icelles il n'en faut nullement douter. J'y ay auſſi adjoint la ſupputation des triangles rectilignes, comme le fondement pour venir à la connoiſſance de meſurer les longueurs inacceſſibles & figures planes, eſperant une autre fois de traiter plus avant en cette ſcience.

NOTEZ

Aprés que ces Tables ont eſté imprimées, on les a collationées à grande diligence, avec l'exemplaire ſuſdit recorrigé, ſans toutesfois avoir peu trouver pas une ſeule faute: ce qui ſoit dit, afin que ceux, qui s'en ſerviront, ſoyent d'autant plus aſſeurez.

CANON
SINUUM
TANGENTIUM
ET
SECANTIUM.

Ad Radium

10000000.

0	Sinus	Tangens	Secans
0	0	0	100000.00
1	29.09	29.09	100000.00
2	58.18	58.18	100000.02
3	87.27	87.27	100000.04
4	116.36	116.36	100000.07
5	145.44	145.44	100000.11
6	174.53	174.53	100000.16
7	203.62	203.62	100000.21
8	232.71	232.71	100000.27
9	261.80	261.80	100000.34
10	290.89	290.89	100000.42
11	319.98	319.98	100000.51
12	349.06	349.07	100000.61
13	378.15	378.16	100000.72
14	407.24	407.25	100000.83
15	436.33	436.33	100000.95
16	465.42	465.42	100001.08
17	494.51	494.51	100001.22
18	523.60	523.60	100001.37
19	552.68	552.69	100001.53
20	581.77	581.78	100001.70
21	610.86	610.87	100001.87
22	639.95	639.96	100002.05
23	669.04	669.05	100002.24
24	698.13	698.14	100002.44
25	727.21	727.23	100002.65
26	756.30	756.32	100002.86
27	785.39	785.41	100003.08
28	814.48	814.50	100003.31
29	843.57	843.60	100003.55
30	872.65	872.69	100003.80

	Sinus	Tangens	Secans
0	10000.00	infini.	infini.
9	99999.99	343774667.38	343774681.93
8	99999.98	171887319.15	171887348.24
7	99999.96	114591529.94	114591573.57
6	99999.93	85943630.48	85943688.66
5	99999.89	68754886.93	68754959.66
4	99999.84	57295721.34	57295808.60
3	99999.79	49110600.28	49110702.09
2	99999.73	42971757.06	42971873.42
1	99999.66	38197099.08	38197229.98
0	99999.58	34377370.74	34377516.19
89	99999.49	31252136.71	31252296.70
88	99999.39	28647773.40	28647947.93
87	99999.28	26444079.88	26444268.95
86	99999.17	24555198.33	24555401.95
85	99999.05	22918166.36	22918384.53
84	99998.92	21485762.18	21485994.89
83	99998.78	20221874.99	20222122.25
82	99998.63	19098418.64	19098680.44
81	99998.47	18093219.83	18093496.17
80	99998.30	17188539.93	17188830.82
79	99998.13	16370019.10	16370324.53
78	99997.95	15625908.37	15626228.34
77	99997.76	14946502.08	14946836.60
76	99997.56	14323712.17	14324061.23
75	99997.35	13750744.68	13751108.29
74	99997.13	13221850.86	13222229.02
73	99996.91	12732133.65	12732526.35
72	99996.68	12277395.54	12277802.79
71	99996.44	11854018.02	11854439.81
70	99996.19	11458865.01	11459301.35

0	Sinus	Tangens	Secans
30	872.65	872.69	100003.80
31	901.74	901.78	100004.06
32	930.83	930.87	100004.33
33	959.92	959.96	100004.61
34	989.00	989.05	100004.89
35	1018.09	1018.14	100005.18
36	1047.18	1047.24	100005.48
37	1076.27	1076.33	100005.79
38	1105.35	1105.42	100006.11
39	1134.44	1134.51	100006.44
40	1163.53	1163.61	100006.77
41	1192.61	1192.70	100007.11
42	1221.70	1221.79	100007.46
43	1250.79	1250.88	100007.82
44	1279.87	1279.98	100008.19
45	1308.96	1309.07	100008.57
46	1338.05	1338.17	100008.96
47	1367.13	1367.26	100009.35
48	1396.22	1396.35	100009.75
49	1425.30	1425.45	100010.16
50	1454.39	1454.54	100010.58
51	1483.48	1483.64	100011.01
52	1512.56	1512.73	100011.45
53	1541.65	1541.83	100011.89
54	1570.73	1570.93	100012.34
55	1599.82	1600.02	100012.80
56	1628.90	1629.12	100013.27
57	1657.99	1658.21	100013.75
58	1687.07	1687.31	100014.24
59	1716.16	1716.41	100014.73
60	1745.24	1745.51	100015.23

	Sinus	Tangens	Secans
30	99996.19	11458865.01	11459301.35
29	99995.93	11089205.13	11089656.01
28	99995.66	10742648.38	10743113.80
27	99995.39	10417094.48	10417574.45
26	99995.11	10110690.24	10111184.75
25	99994.82	9821794.26	9822303.32
24	99994.52	9548947.52	9549471.12
23	99994.21	9290848.72	9291386.87
22	99993.89	9046333.57	9046886.26
21	99993.56	8814357.15	8814924.39
20	99993.23	8593979.07	8594560.86
19	99992.89	8384350.67	8384947.00
18	99992.54	8184704.11	8185314.98
17	99992.18	7994342.99	7994968.41
16	99991.81	7812634.20	7813274.16
15	99991.43	7639000.93	7639655.44
14	99991.04	7472916.51	7473585.56
13	99990.65	7313899.10	7314582.70
12	99990.25	7161507.01	7162205.15
11	99989.84	7015334.61	7016047.35
10	99989.42	6875008.72	6875735.95
9	99988.99	6740185.43	6740927.20
8	99988.55	6610547.27	6611303.59
7	99988.11	6485800.75	6486571.62
6	99987.66	6365674.12	6366459.53
5	99987.20	6249915.37	6250715.33
4	99986.73	6138290.52	6139105.02
3	99986.25	6030581.99	6031411.04
2	99985.76	5926587.21	5927430.81
1	99985.27	5826117.35	5826975.49
0	99984.77	5728996.16	5729868.85

1	Sinus	Tangens	Secans
0	1745.24	1745.51	100015.2
1	1774.32	1774.60	100015.7
2	1803.41	1803.70	100016.2
3	1832.49	1832.80	100016.7
4	1861.58	1861.90	100017.3
5	1890.66	1891.00	100017.8
6	1919.74	1920.10	100018.4
7	1948.83	1949.20	100018.9
8	1977.91	1978.30	100019.5
9	2006.99	2007.40	100020.1
10	2036.08	2036.50	100020.7
11	2065.16	2065.60	100021.3
12	2094.24	2094.70	100021.9
13	2123.32	2123.80	100022.5
14	2152.41	2152.91	100023.1
15	2181.49	2182.01	100023.8
16	2210.57	2211.11	100024.44
17	2239.65	2240.21	100025.09
18	2268.73	2269.32	100025.75
19	2297.81	2298.42	100026.41
20	2326.90	2327.53	100027.08
21	2355.98	2356.63	100027.76
22	2385.06	2385.74	100028.45
23	2414.14	2414.84	100029.15
24	2443.22	2443.95	100029.86
25	2472.30	2473.05	100030.58
26	2501.38	2502.16	100031.30
27	2530.46	2531.27	100032.03
28	2559.54	2560.38	100032.77
29	2588.62	2589.48	100033.52
30	2617.69	2618.59	100034.28

	Sinus	Tangens	Secans
60	99984.77	5728996.16	5729868.85
59	99984.26	5635058.96	5635946.19
58	99983.74	5544151.67	5545053.45
57	99983.21	5456130.03	5457046.35
56	99982.67	5370858.75	5371789.62
55	99982.12	5288210.91	5289156.37
54	99981.57	5208067.26	5209027.22
53	99981.01	5130315.66	5131290.17
52	99980.44	5054850.59	5055839.65
51	99979.86	4981572.64	4982576.23
50	99979.27	4910388.06	4911406.20
49	99978.67	4841208.41	4842241.10
48	99978.06	4773950.14	4774997.38
47	99977.45	4708534.30	4709596.08
46	99976.83	4644886.20	4645962.53
45	99976.20	4582935.12	4584025.99
44	99975.56	4522614.07	4523719.49
43	99974.91	4463859.56	4464979.52
42	99974.25	4406611.32	4407745.83
41	99973.59	4350812.16	4351961.22
40	99972.92	4296407.73	4297571.34
39	99972.24	4243346.39	4244524.54
38	99971.55	4191578.99	4192771.68
37	99970.85	4141058.76	4142266.00
36	99970.14	4091741.16	4092962.95
35	99969.43	4043583.75	4044820.09
34	99968.71	3996546.05	3997796.94
33	99967.98	3950589.46	3951854.89
32	99967.24	3905677.11	3906957.09
31	99966.49	3861773.81	3863068.34
30	99965.73	3818845.93	3820155.00

I	Sinus	Tangens	Secans
30	2617.69	2618.59	100034.28
31	2646.77	2647.70	100035.05
32	2675.85	2676.81	100035.82
33	2704.93	2705.92	100036.60
34	2734.01	2735.03	100037.39
35	2763.09	2764.14	100038.19
36	2792.16	2793.25	100039.00
37	2821.24	2822.36	100039.82
38	2850.32	2851.48	100040.65
39	2879.40	2880.59	100041.48
40	2908.47	2909.70	100042.32
41	2937.55	2938.82	100043.17
42	2966.62	2967.93	100044.03
43	2995.70	2997.05	100044.90
44	3024.78	3026.16	100045.78
45	3053.85	3055.28	100046.67
46	3082.93	3084.39	100047.56
47	3112.00	3113.51	100048.46
48	3141.08	3142.63	100049.37
49	3170.15	3171.74	100050.29
50	3199.22	3200.86	100051.22
51	3228.30	3229.98	100052.15
52	3257.37	3259.10	100053.09
53	3286.44	3288.22	100054.05
54	3315.52	3317.34	100055.01
55	3344.59	3346.46	100055.98
56	3373.66	3375.58	100056.96
57	3402.73	3404.71	100057.95
58	3431.81	3433.83	100058.94
59	3460.88	3462.95	100059.94
60	3489.95	3492.08	100060.95

	Sinus	Tangens	Secans
30	99965.73	3818845.93	3820155.00
29	99964.96	3776861.30	3778184.92
28	99964.19	3735789.17	3737127.34
27	99963.41	3695600.11	3696952.82
26	99962.62	3656265.92	3657633.18
25	99961.82	3617759.62	3619141.43
24	99961.01	3580055.33	3581451.68
23	99960.19	3543128.25	3544539.15
22	99959.36	3506954.58	3508380.03
21	99958.53	3471511.50	3472951.50
20	99957.69	3436777.09	3438231.63
19	99956.84	3402730.29	3404199.39
18	99955.98	3369350.89	3370834.53
17	99955.11	3336619.45	3338117.63
16	99954.24	3304517.27	3306030.00
15	99953.36	3273026.37	3274553.65
14	99952.47	3242129.46	3243671.29
13	99951.57	3211809.88	3213366.26
12	99950.66	3182051.60	3183622.52
11	99949.74	3152839.16	3154424.63
10	99948.81	3124157.67	3125757.70
9	99947.88	3095992.80	3097607.37
8	99946.94	3068330.70	3069959.82
7	99945.99	3041158.02	3042801.69
6	99945.03	3014461.89	3016120.10
5	99944.06	2988229.86	2989902.63
4	99943.08	2962449.95	2964137.26
3	99942.09	2937110.55	2938812.41
2	99941.09	2912200.47	2913916.88
1	99940,09	2887708.88	2889439.84
0	99939.08	2863625.33	2865370.83

2	Sinus	Tangens	Secans
0	3489.95	3492.08	100060.9
1	3519.02	3521.20	100061.9
2	3548.09	3550.33	100063.0
3	3577.16	3579.45	100064.0
4	3606.23	3608.58	100065.0
5	3635.30	3637.71	100066.1
6	3664.37	3666.83	100067.2
7	3693.44	3695.96	100068.2
8	3722.51	3725.09	100069.3
9	3751.58	3754.22	100070.45
10	3780.65	3783.35	100071.55
11	3809.71	3812.48	100072.66
12	3838.78	3841.61	100073.77
13	3867.85	3870.74	100074.89
14	3896.91	3899.88	100076.02
15	3925.98	3929.01	100077.16
16	3955.05	3958.14	100078.31
17	3984.11	3987.28	100079.47
18	4013.18	4016.41	100080.63
19	4042.24	4045.55	100081.80
20	4071.31	4074.69	100082.98
21	4100.37	4103.83	100084.17
22	4129.44	4132.96	100085.37
23	4158.50	4162.10	100086.58
24	4187.57	4191.24	100087.80
25	4216.63	4220.38	100089.02
26	4245.69	4249.52	100090.25
27	4274.75	4278.66	100091.49
28	4303.82	4307.81	100092.74
29	4332.88	4336.95	100094.00
30	4361.94	4366.09	100095.27

	Sinus	Tangens	Secans
60	99939.08	2863625.33	2865370.83
59	99938.06	2839939.69	2841699.74
58	99937.03	2816642.18	2818416.78
57	99935.99	2793723.33	2795512.48
56	99934.95	2771173.99	2772977.69
55	99933.90	2748985.28	2750803.53
54	99932.84	2727148.61	2728981.41
53	99931.77	2705655.68	2707503.03
52	99930.69	2684498.43	2686360.33
51	99929.60	2663669.04	2665545.49
50	99928.51	2643159.96	2645050.96
49	99927.40	2622963.84	2624869.39
48	99926.29	2603073.58	2604993.68
47	99925.17	2583482.27	2585416.92
46	99924.04	2564183.23	2566132.43
45	99922.90	2545169.96	2547133.71
44	99921.75	2526436.15	2528414.45
43	99920.60	2507975.68	2509968.53
42	99919.44	2489782.62	2491790.02
41	99918.27	2471851.19	2473873.14
40	99917.09	2454175.78	2456212.28
39	99915.90	2436750.95	2438802.00
38	99914.70	2419571.40	2421637.00
37	99913.49	2402631.99	2404712.14
36	99912.28	2385927.72	2388022.42
35	99911.06	2369453.72	2371562.97
34	99909.83	2353205.25	2355329.05
33	99908.59	2337177.72	2339316.07
32	99907.34	2321366.65	2323519.55
31	99906.08	2305767.67	2307935.13
30	99904.82	2290376.55	2292558.56

2	Sinus	Tangens	Secans
30	4361.94	4366.09	100095.27
31	4391.00	4395.24	100096.55
32	4420.06	4424.38	100097.83
33	4449.12	4453.53	100099.12
34	4478.18	4482.68	100100.42
35	4507.24	4511.82	100101.73
36	4536.30	4540.97	100103.05
37	4565.36	4570.12	100104.38
38	4594.42	4599.27	100105.71
39	4623.47	4628.42	100107.05
40	4652.53	4657.57	100108.40
41	4681.59	4686.73	100109.76
42	4710.64	4715.88	100111.13
43	4739.70	4745.03	100112.51
44	4768.76	4774.19	100113.90
45	4797.81	4803.34	100115.30
46	4826.87	4832.50	100116.70
47	4855.92	4861.66	100118.11
48	4884.98	4890.82	100119.53
49	4914.03	4919.97	100120.96
50	4943.08	4949.13	100122.40
51	4972.14	4978.29	100123.85
52	5001.19	5007.46	100125.30
53	5030.24	5036.62	100126.76
54	5059.29	5065.78	100128.23
55	5088.35	5094.95	100129.71
56	5117.40	5124.11	100131.20
57	5146.45	5153.28	100132.70
58	5175.50	5182.44	100134.20
59	5204.55	5211.61	100135.71
60	5233.60	5240.78	100137.23

	Sinus	Tangens	Secans
30	99904.82	2290367.55	2292558.56
29	99903.55	2275189.16	2277385.72
28	99902.27	2260201.48	2262412.59
27	99900.98	2245409.59	2247635.25
26	99899.68	2230809.67	2233049.89
25	99898.37	2216398.02	2218652.78
24	99897.05	2202171.00	2204440.32
23	99895.73	2188125.10	2190408.97
22	99894.40	2174256.87	2176555.29
21	99893.06	2160562.96	2162875.93
20	99891.71	2147040.10	2149367.63
19	99890.35	2133685.11	2136027.19
18	99888.98	2120494.88	2122851.51
17	99887.61	2107466.37	2109837.55
16	99886.23	2094596.63	2096982.36
15	99884.84	2081882.76	2084283.05
14	99883.44	2069321.96	2071736.80
13	99882.03	2056911.47	2059340.86
12	99880.61	2044648.61	2047092.55
11	99879.18	2032530.75	2034989.25
10	99877.75	2020555.35	2023028.40
9	99876.31	2008719.89	2011207.50
8	99874.86	1997021.95	1999524.11
7	99873.40	1985459.12	1987975.84
6	99871.93	1974029.10	1976560.36
5	99870.4	1962729.59	1965275.41
4	99868.97	1951558.37	1954118.74
3	99867.48	1940513.27	1943088.20
2	99865.98	1929592.17	1932181.65
1	99864.47	1918792.98	1921397.01
0	99862.95	1908113.67	1910732.26

3	Sinus	Tangens	Secans
0	5233.60	5240.78	100137.23
1	5262.64	5269.95	100138.76
2	5291.69	5299.12	100140.30
3	5320.74	5328.29	100141.85
4	5349.79	5357.46	100143.41
5	5378.83	5386.63	100144.98
6	5407.88	5415.81	100146.55
7	5436.93	5444.98	100148.13
8	5465.97	5474.16	100149.72
9	5495.02	5503.33	100151.32
10	5524.06	5532.51	100152.93
11	5553.11	5561.69	100154.55
12	5582.15	5590.87	100156.17
13	5611.19	5620.05	100157.80
14	5640.24	5649.23	100159.44
15	5669.28	5678.41	100161.09
16	5698.32	5707.59	100162.75
17	5727.36	5736.78	100164.42
18	5756.40	5765.96	100166.10
19	5785.44	5795.15	100167.78
20	5814.48	5824.34	100169.47
21	5843.52	5853.52	100171.17
22	5872.56	5882.71	100172.88
23	5901.60	5911.90	100174.60
24	5930.64	5941.09	100176.33
25	5959.67	5970.29	100178.07
26	5988.71	5999.48	100179.81
27	6017.75	6028.67	100181.56
28	6046.78	6057.87	100183.32
29	6075.82	6087.06	100185.09
30	6104.85	6116.26	100186.87

	Sinus	Tangens	Secans
60	99862.95	1908113.67	1910732.26
59	99861.42	1897552.26	1900185.40
58	99859.89	1887106.80	1889754.50
57	99858.35	1876775.39	1879437.65
56	99856.80	1866556.18	1869232.99
55	99855.24	1856447.34	1859138.71
54	99853.67	1846447.09	1849153.01
53	99852.09	1836553.70	1839274.17
52	99850.50	1826765.44	1829500.48
51	99848.91	1817080.67	1819830.26
50	99847.31	1807497.74	1810261.88
49	99845.70	1798015.05	1800793.75
48	99844.08	1788631.04	1791424.29
47	99842.45	1779344.17	1782151.98
46	99840.81	1770152.94	1772975.31
45	99839.16	1761055.88	1763892.80
44	99837.51	1752051.55	1754903.03
43	99835.85	1743138.54	1746004.57
42	99834.18	1734315.46	1737196.05
41	99832.50	1725580.95	1728476.10
40	99830.81	1716933.69	1719843.40
39	99829.11	1708372.38	1711296.64
38	99827.41	1699895.74	1702834.56
37	99825.70	1691502.51	1694455.89
36	99823.98	1683191.48	1686159.41
35	99822.25	1674961.44	1677943.92
34	99820.51	1666811.20	1669808.25
33	99818.76	1658739.62	1661751.22
32	99817.01	1650745.55	1653771.71
31	99815.25	1642827.89	1645868.61
30	99813.48	1634985.55	1638040.82

3	Sinus	Tangens	Secans
30	6104.85	6116.26	100186.8
31	6133.89	6145.46	100188.6
32	6162.92	6174.66	100190.4
33	6191.96	6203.86	100192.2
34	6220.99	6233.06	100194.0
35	6250.02	6262.26	100195.8
36	6279.05	6291.47	100197.72
37	6308.08	6320.67	100199.5
38	6337.11	6349.88	100201.41
39	6366.14	6379.08	100203.26
40	6395.17	6408.29	100205.12
41	6424.20	6437.50	100206.99
42	6453.23	6466.71	100208.87
43	6482.26	6495.92	100210.76
44	6511.29	6525.13	100212.66
45	6540.31	6554.35	100214.57
46	6569.34	6583.56	100216.49
47	6598.36	6612.78	100218.41
48	6627.39	6641.99	100220.34
49	6656.41	6671.21	100222.28
50	6685.44	6700.43	100224.23
51	6714.46	6729.65	100226.19
52	6743.48	6758.87	100228.16
53	6772.51	6788.09	100230.13
54	6801.53	6817.32	100232.11
55	6830.55	6846.54	100234.10
56	6859.57	6875.77	100236.10
57	6888.59	6904.99	100238.11
58	6917.61	6934.22	100240.13
59	6946.63	6963.45	100242.16
60	6975.65	6992.68	100244.19

	Sinus	Tangens	Secans
0	99813.48	1634985.55	1638040.82
9	99811.70	1627217.44	1630287.28
8	99809.91	1619522.53	1622606.93
7	99808.11	1611899.79	1614998.74
6	99806.30	1604348.19	1607461.70
5	99804.49	1596866.74	1599994.81
4	99802.67	1589454.48	1592597.11
3	99800.84	1582110.45	1585267.64
2	99799.00	1574833.71	1578005.45
1	99797.15	1567623.33	1570809.63
0	99795.29	1560478.41	1563679.27
9	99793.43	1553398.06	1556613.48
8	99791.56	1546381.41	1549611.39
7	99789.68	1539427.60	1542672.15
6	99787.79	1532535.80	1535794.90
5	99785.89	1525705.17	1528978.83
4	99783.98	1518934.90	1522223.12
3	99782.06	1512224.20	1515526.98
2	99780.14	1505572.27	1508889.61
1	99778.21	1498978.36	1502310.26
0	99776.27	1492441.70	1495788.16
9	99774.32	1485961.55	1489322.58
8	99772.36	1479537.18	1482912.77
7	99770.39	1473167.87	1476558.02
6	99768.42	1466852.92	1470257.63
5	99766.44	1460591.63	1464010.90
4	99764.45	1454383.32	1457817.15
3	99762.45	1448227.32	1451676.71
2	99760.44	1442122.97	1445585.92
1	99758.42	1436069.61	1439547.13
0	99756.40	1430066.63	1433558.70

4	Sinus	Tangens	Secans
0	6975.65	6992.68	100244.1
1	7004.66	7021.91	100246.2
2	7033.68	7051.15	100248.2
3	7062.70	7080.38	100250.3
4	7091.71	7109.61	100252.4
5	7120.73	7138.85	100254.4
6	7149.74	7168.09	100256.5
7	7178.76	7197.33	100258.6
8	7207.77	7226.57	100260.7
9	7236.78	7255.81	100262.8
10	7265.80	7285.05	100265.0
11	7294.81	7314.30	100267.1
12	7323.82	7343.54	100269.2
13	7352.83	7372.79	100271.4
14	7381.84	7402.03	100273.5
15	7410.85	7431.28	100275.7
16	7439.86	7460.53	100277.9
17	7468.87	7489.79	100280.0
18	7497.87	7519.04	100282.28
19	7526.88	7548.29	100284.48
20	7555.89	7577.55	100286.68
21	7584.89	7606.80	100288.85
22	7613.90	7636.06	100291.11
23	7642.90	7665.32	100293.34
24	7671.90	7694.58	100295.58
25	7700.91	7723.84	100297.83
26	7729.91	7753.11	100300.09
27	7758.91	7782.37	100302.36
28	7787.91	7811.64	100304.64
29	7816.91	7840.90	100306.93
30	7845.91	7870.17	100309.22

	Sinus	Tangens	Secans
60	99756.40	1430066.63	1433558.70
59	99754.37	1424113.37	1427620.01
58	99752.33	1418209.24	1421730.45
57	99750.28	1412353.63	1415889.39
56	99748.22	1406545.93	1410096.25
55	99746.15	1400785.56	1404350.45
54	99744.07	1395071.94	1398651.39
53	99741.99	1389404.51	1392998.52
52	99739.90	1383782.70	1387391.28
51	99737.80	1378205.98	1381829.12
50	99735.69	1372673.79	1376311.49
49	99733.57	1367185.60	1370837.87
48	99731.44	1361740.89	1365407.72
47	99729.31	1356339.15	1360020.54
46	99727.17	1350979.86	1354675.82
45	99725.02	1345662.53	1349373.06
44	99722.86	1340386.67	1344111.76
43	99720.69	1335151.79	1338891.44
42	99718.51	1329957.41	1333711.63
41	99716.32	1324803.07	1328571.86
40	99714.13	1319688.30	1323471.65
39	99711.93	1314612.66	1318410.57
38	99709.72	1309575.68	1313388.16
37	99707.50	1304576.93	1308403.98
36	99705.27	1299615.98	1303457.60
35	99703.03	1294692.40	1298548.58
34	99700.79	1289805.77	1293676.51
33	99698.54	1284955.66	1288840.97
32	99696.28	1280141.68	1284041.55
31	99694.01	1275363.41	1279277.86
30	99691.73	1270620.47	1274549.48

4	Sinus	Tangens	Secans
30	7845.91	7870.17	100309.22
31	7874.91	7899.44	100311.52
32	7903.91	7928.71	100313.83
33	7932.90	7957.98	100316.15
34	7961.90	7987.26	100318.48
35	7990.90	8016.53	100320.81
36	8019.89	8045.81	100323.15
37	8048.89	8075.09	100325.50
38	8077.88	8104.37	100327.86
39	8106.87	8133.65	100330.23
40	8135.87	8162.93	100332.61
41	8164.86	8192.21	100335.00
42	8193.85	8221.50	100337.40
43	8222.84	8250.78	100339.80
44	8251.83	8280.07	100342.21
45	8280.82	8309.36	100344.63
46	8309.81	8338.65	100347.06
47	8338.80	8367.94	100349.50
48	8367.78	8397.23	100351.95
49	8396.77	8426.53	100354.41
50	8425.76	8455.83	100356.87
51	8454.74	8485.12	100359.34
52	8483.73	8514.42	100361.82
53	8512.71	8543.72	100364.31
54	8541.69	8573.02	100366.81
55	8570.67	8602.33	100369.32
56	8599.66	8631.63	100371.84
57	8628.64	8660.94	100374.36
58	8657.62	8690.25	100376.89
59	8686.60	8719.56	100379.43
60	8715.57	8748.87	100381.98

	Sinus	Tangens	Secans
0	99691.73	1270620.47	1274549.48
59	99689.44	1265912.46	1269856.04
58	99687.15	1261239.00	1265197.15
57	99684.85	1256599.71	1260572.42
56	99682.54	1251994.20	1255981.48
55	99680.22	1247422.12	1251423.97
54	99677.89	1242883.10	1246899.52
53	99675.55	1238376.79	1242407.77
52	99673.20	1233902.82	1237948.37
51	99670.85	1229460.85	1233520.97
50	99668.49	1225050.55	1229125.23
49	99666.12	1220671.56	1224760.82
48	99663.74	1216323.56	1220427.39
47	99661.35	1212006.22	1216124.62
46	99658.95	1207719.22	1211852.18
45	99656.55	1203462.23	1207609.76
44	99654.14	1199234.95	1203397.05
43	99651.72	1195037.05	1199213.72
42	99649.29	1190868.24	1195059.48
41	99646.85	1186728.21	1190934.02
40	99644.40	1182616.67	1186837.05
39	99641.94	1178533.31	1182768.27
38	99639.48	1174477.86	1178727.39
37	99637.01	1170450.03	1174714.12
36	99634.53	1166449.53	1170728.19
35	99632.04	1162476.08	1166769.32
34	99629.54	1158529.42	1162837.23
33	99627.03	1154609.27	1158931.65
32	99624.52	1150715.36	1155052.31
31	99622.00	1146847.43	1151198.96
30	99619.47	1143005.23	1147371.32

5	Sinus	Tangens	Secans
0	8715.57	8748.87	100381.98
1	8744.55	8778.18	100384.54
2	8773.53	8807.49	100387.11
3	8802.51	8836.81	100389.69
4	8831.48	8866.12	100392.28
5	8860.46	8895.44	100394.87
6	8889.43	8924.76	100393.47
7	8918.40	8954.08	100400.08
8	8947.38	8983.41	100402.70
9	8976.35	9012.73	100405.33
10	9005.32	9042.06	100407.97
11	9034.29	9071.38	100410.61
12	9063.26	9100.71	100413.26
13	9092.23	9130.04	100415.92
14	9121.19	9159.38	100418.59
15	9150.16	9188.71	100421.27
16	9179.13	9218.04	100423.96
17	9208.09	9247.38	100426.66
18	9237.06	9276.72	100429.37
19	9266.02	9306.06	100432.08
20	9294.99	9335.40	100434.80
21	9323.95	9364.74	100437.53
22	9352.91	9394.09	100440.27
23	9381.87	9423.44	100443.02
24	9410.83	9452.78	100445.78
25	9439.79	9482.13	100448.55
26	9468.75	9511.48	100451.33
27	9497.71	9540.84	100454.11
28	9526.66	9570.19	100456.90
29	9555.62	9599.55	100459.70
30	9584.58	9628.90	100462.51

	Sinus	Tangens	Secans
0	99619.47	1143005.23	1147371.32
9	99616.93	1139188.49	1143569.16
8	99614.38	1135396.96	1139792.20
7	99611.82	1131630.40	1136040.21
6	99609.26	1127888.55	1132312.93
5	99606.69	1124171.17	1128610.13
4	99604.11	1120478.03	1124931.56
3	99601.52	1116808.88	1121276.99
2	99598.92	1113163.50	1117646.17
1	99596.31	1109541.64	1114038.90
0	99593.69	1105943.10	1110454.92
9	99591.07	1102376.63	1106894.03
8	99588.44	1098815.01	1103355.99
7	99585.80	1095285.04	1099840.59
6	99583.15	1091777.49	1096347.61
5	99580.49	1088292.14	1092876.84
4	99577.82	1084828.80	1089428.07
3	99575.15	1081387.24	1086001.09
2	99572.47	1077967.27	1082595.69
1	99569.78	1074568.68	1079211.68
0	99567.08	1071191.26	1075848.84
9	99564.37	1067834.84	1072506.99
8	99561.65	1064499.19	1069185.92
7	99558.92	1061184.14	1065885.45
6	99556.19	1057889.50	1062605.38
5	99553.45	1054615.07	1059345.53
4	99550.70	1051360.67	1056150.70
3	99547.94	1048126.11	1052885.72
2	99545.17	1044911.22	1049685.41
1	99542.40	1041715.81	1046504.58
0	99539.62	1038539.71	1043343.05

5	Sinus	Tangens	Secans
30	9584.58	9628.90	100462.5
31	9613.53	9658.26	100465.3
32	9642.48	9687.63	100468.1
33	9671.44	9716.99	100470.9
34	9700.39	9746.35	100473.8
35	9729.34	9775.72	100476.6
36	9758.29	9805.09	100479.5
37	9787.24	9834.46	100482.4
38	9816.19	9863.83	100485.2
39	9845.14	9893.20	100488.1
40	9874.08	9922.57	100491.0
41	9903.03	9951.95	100493.9
42	9931.97	9981.33	100496.9
43	9960.92	10010.71	100499.8
44	9989.86	10040.09	100502.7
45	10018.81	10069.47	100505.6
46	10047.75	10098.85	100508.6
47	10076.69	10128.24	100511.6
48	10105.63	10157.63	100514.5
49	10134.57	10187.02	100517.5
50	10163.51	10216.41	100520.5
51	10192.45	10245.80	100523.5
52	10221.38	10275.20	100526.5
53	10250.32	10304.60	100529.5
54	10279.25	10334.00	100532.5
55	10308.19	10363.40	100535.5
56	10337.12	10392.80	100538.6
57	10366.05	10422.20	100541.6
58	10394.99	10451.60	100544.6
59	10423.92	10481.01	100547.7
60	10452.85	10510.42	100550.8

	Sinus	Tangens	Secans
30	99539.62	1038539.71	1043343.05
29	99536.83	1035382.74	1040200.66
28	99534.03	1032244.73	1037077.23
27	99531.22	1029125.51	1033972.59
26	99528.40	1026024.90	1030886.56
25	99525.57	1022942.76	1027818.99
24	99522.74	1019878.90	1024769.71
23	99519.90	1016833.16	1021738.55
22	99517.05	1013805.39	1018725.36
21	99514.19	1010795.42	1015729.98
20	99511.32	1007803.11	1012752.24
19	99508.44	1004828.28	1009792.00
18	99505.55	1001870.80	1006849.09
17	99502.66	998930.50	1003923.38
16	99499.76	996007.24	1001014.70
15	99496.85	993100.88	998122.91
14	99493.93	990211.25	995247.87
13	99491.00	987338.23	992389.43
12	99488.06	984481.66	989547.44
11	99485.12	981641.40	986721.76
10	99482.17	978817.32	983912.27
9	99479.21	976009.27	981118.80
8	99476.24	973217.13	978341.24
7	96473.26	970440.75	975579.44
6	99470.27	967680.00	972833.27
5	99467.28	964934.75	970102.60
4	99464.28	962204.86	967387.30
3	99461.27	959490.22	964687.24
2	99458.25	956790.68	962002.29
1	99455.22	954106.13	959332.33
0	99452.18	951436.45	956677.22

	Sinus	Tangens	Secans
0	10452.85	10510.42	100550.82
1	10481.78	10539.83	100553.90
2	10510.70	10569.24	100556.99
3	10539.63	10598.66	100560.09
4	10568.56	10628.08	100563.20
5	10597.48	10657.50	100566.31
6	10626.41	10686.92	100569.43
7	10655.33	10716.34	100572.56
8	10684.25	10745.76	100575.70
9	10713.18	10775.19	100578.85
10	10742.10	10804.62	100582.01
11	10771.02	10834.05	100585.18
12	10799.94	10863.48	100588.35
13	10828.85	10892.91	100591.53
14	10857.77	10922.34	100594.72
15	10886.69	10951.78	100597.92
16	10915.60	10981.22	100601.13
17	10944.52	11010.66	100604.35
18	10973.43	11040.10	100607.58
19	11002.34	11069.54	100610.81
20	11031.26	11098.99	100614.05
21	11060.17	11128.44	100617.30
22	11089.08	11157.89	100620.56
23	11117.99	11187.34	100623.83
24	11146.89	11216.79	100627.11
25	11175.80	11246.25	100630.40
26	11204.71	11275.71	100633.70
27	11233.61	11305.17	100637.01
28	11262.52	11334.63	100640.32
29	11291.42	11364.09	100643.64
30	11320.32	11393.56	100646.97

	Sinus	Tangens	Secans
60	99452.18	951436.45	956677.22
59	99449.14	948781.49	954036.86
58	99446.09	946141.16	951411.10
57	99443.03	943515.31	948799.84
56	99439.96	940903.84	946202.96
55	99436.88	938306.63	943620.33
54	99433.79	935723.55	941051.84
53	99430.69	933154.50	938497.38
52	99427.59	930599.36	935956.82
51	99424.48	928058.02	933430.06
50	99421.36	925530.35	930916.99
49	99418.23	923016.27	928417.49
48	99415.09	920515.64	925931.45
47	99411.94	918028.38	923458.77
46	99408.79	915554.36	920999.34
45	99405.63	913093.48	918553.05
44	99402.46	910645.64	916119.80
43	99399.28	908210.74	913699.49
42	99396.09	905788.67	911292.00
41	99392.89	903379.33	908897.25
40	99389.69	900982.61	906515.12
39	99386.48	898598.43	904145.53
38	99383.26	896226.68	901788.37
37	99380.03	893867.26	899443.54
36	99376.79	891520.08	897110.95
35	99373.54	889185.05	894790.51
34	99370.28	886862.06	892482.11
33	99367.02	884551.03	890185.67
32	99363.75	882251.86	887901.09
31	99360.47	879964.46	885628.28
30	99357.18	877688.74	883367.15

	Sinus	Tangens	Secans
30	11320.32	11393.56	100646.97
31	11349.22	11423.03	100650.31
32	11378.12	11452.50	100653.66
33	11407.02	11481.97	100657.02
34	11435.92	11511.44	100660.39
35	11464.82	11540.91	100663.77
36	11493.71	11570.39	100667.15
37	11522.61	11599.87	100670.54
38	11551.51	11629.35	100673.94
39	11580.40	11658.83	100677.35
40	11609.29	11688.31	100680.77
41	11638.18	11717.80	100684.20
42	11667.07	11747.29	100687.64
43	11695.96	11776.78	100691.08
44	11724.85	11806.28	100694.53
45	11753.74	11835.78	100697.99
46	11782.63	11865.28	100701.46
47	11811.51	11894.78	100704.94
48	11840.40	11924.28	100708.43
49	11869.28	11953.78	100711.93
50	11898.16	11983.28	100715.44
51	11927.04	12012.79	100718.96
52	11955.93	12042.30	100722.48
53	11984.81	12071.81	100726.01
54	12013.68	12101.32	100729.55
55	12042.56	12130.84	100733.10
56	12071.44	12160.36	100736.66
57	12100.31	12189.88	100740.23
58	12129.19	12219.40	100743.81
59	12158.06	12248.93	100747.40
60	12186.93	12278.46	100750.99

	Sinus	Tangens	Secans
30	99357.18	877688.74	883367.15
29	99353.88	875424.61	881117.61
28	99350.58	873171.98	878879.57
27	99347.27	870930.77	876652.95
26	99343.95	868700.88	874437.66
25	99340.62	866482.23	872233.61
24	99337.28	864274.75	870040.71
23	99333.93	862078.33	867858.89
22	99330.57	859892.90	865688.05
21	99327.20	857718.38	863528.12
20	99323.83	855554.68	861379.01
19	99320.45	853401.72	859240.65
18	99317.06	851259.43	857112.95
17	99313.66	849127.72	854995.84
16	99310.25	847006.51	852889.23
15	99306.84	844895.73	850793.04
14	99303.42	842795.31	848707.21
13	99299.99	840705.15	846631.65
12	99296.55	838625.19	844566.29
11	99293.10	836555.36	842511.05
10	99289.64	834495.57	840465.86
9	99286.17	832445.77	838430.65
8	99282.70	830405.86	836405.34
7	99279.22	828375.79	834389.86
6	99275.73	826355.47	832384.15
5	99272.23	824344.85	830388.12
4	99268.72	822343.84	828401.71
3	99265.21	820352.39	826424.85
2	99261.69	818370.41	824457.48
1	99258.16	816397.86	822499.52
0	99254.62	814434.64	820550.90

7	Sinus	Tangens	Secans
0	12186.93	12278.46	100750.99
1	12215.81	12307.99	100754.59
2	12244.68	12337.52	100758.20
3	12273.55	12367.05	100761.82
4	12302.41	12396.58	100765.45
5	12331.28	12426.12	100769.09
6	12360.15	12455.66	100772.74
7	12389.01	12485.20	100776.39
8	12417.88	12514.74	100780.05
9	12446.74	12544.29	100783.72
10	12475.60	12573.84	100787.40
11	12504.46	12603.39	100791.09
12	12533.32	12632.94	100794.79
13	12562.18	12662.49	100798.50
14	12591.04	12692.05	100802.22
15	12619.90	12721.61	100805.95
16	12648.75	12751.17	100809.69
17	12677.61	12780.73	100813.43
18	12706.46	12810.29	100817.18
19	12735.31	12839.86	100820.94
20	12764.16	12869.43	100824.71
21	12793.01	12899.00	100828.49
22	12821.86	12928.57	100832.28
23	12850.71	12958.15	100836.07
24	12879.56	12987.73	100839.88
25	12908.41	13017.31	100843.70
26	12937.25	13046.89	100847.52
27	12966.09	13076.48	100851.35
28	12994.94	13106.07	100855.19
29	13023.78	13135.66	100859.04
30	13052.62	13165.25	100862.90

	Sinus	Tangens	Secans
60	99254.62	814434.64	820550.90
59	99251.07	812480.71	818611.57
58	99247.51	810535.99	816681.45
57	99243.94	808600.42	814760.48
56	99240.36	806673.94	812848.60
55	99236.78	804756.47	810945.73
54	99233.19	802847.96	809051.82
53	99229.59	800948.35	807166.81
52	99225.98	799057.56	805290.62
51	99222.36	797175.55	803423.21
50	99218.74	795302.24	801564.50
49	99215.11	793437.58	799714.45
48	99211.47	791581.51	797872.98
47	99207.82	789733.96	796040.03
46	99204.16	787894.89	794215.56
45	99200.49	786064.23	792399.50
44	99196.81	784241.91	790591.79
43	99193.13	782427.90	788792.38
42	99189.44	780622.12	787001.20
41	99185.74	778824.53	785218.21
40	99182.03	777035.06	783443.35
39	99178.31	775253.66	781676.56
38	99174.59	773480.28	779917.78
37	99170.86	771714.86	778166.97
36	99167.12	769957.35	776424.06
35	99163.37	768207.69	774689.01
34	99159.61	766465.84	772961.76
33	99155.84	764731.74	771242.27
32	99152.06	763005.33	769530.47
31	99148.28	761286.57	767826.31
30	99144.49	759575.41	766129.76

7	Sinus	Tangens	Secans
30	13052.62	13165.25	100862.90
31	13081.46	13194.84	100866.77
32	13110.30	13224.44	100870.65
33	13139.13	13254.04	100874.53
34	13167.97	13283.64	100878.42
35	13196.81	13313.24	100882.32
36	13225.64	13342.85	100886.23
37	13254.47	13372.46	100890.15
38	13283.30	13402.07	100894.08
39	13312.13	13431.68	100898.02
40	13340.96	13461.29	100901.97
41	13369.79	13490.91	100905.92
42	13398.62	13520.53	100909.88
43	13427.44	13550.15	100913.85
44	13456.27	13579.77	100917.83
45	13485.09	13609.40	100921.82
46	13513.92	13639.03	100925.82
47	13542.74	13668.66	100929.83
48	13571.56	13698.29	100933.85
49	13600.38	13727.93	100937.88
50	13629.19	13757.57	100941.92
51	13658.01	13787.21	100945.96
52	13686.83	13816.85	100950.01
53	13715.64	13846.50	100954.07
54	13744.45	13876.15	100958.14
55	13773.27	13905.80	100962.22
56	13802.08	13935.45	100966.31
57	13830.89	13965.10	100970.41
58	13859.70	13994.76	100974.52
59	13888.50	14024.42	100978.64
60	13917.31	14054.08	100982.76

	Sinus	Tangens	Secans
0	99144.49	759575.41	766129.76
9	99140.69	757871.79	764440.75
8	99136.88	756175.67	762759.23
7	99133.06	754486.99	761085.16
6	99129.23	752805.71	759418.49
5	99125.39	751131.78	757759.16
4	99121.55	749465.14	756107.13
3	99117.70	747805.76	754462.36
2	99113.84	746153.57	752824.78
1	99109.97	744508.55	751194.37
0	99106.09	742870.64	749571.06
19	99102.21	741239.78	747954.82
18	99098.32	739615.95	746345.60
17	99094.42	737999.09	744743.35
16	99090.51	736389.16	743148.03
15	99086.59	734786.10	741559.59
14	99082.66	733189.89	739977.98
13	99078.72	731600.47	738403.18
12	99074.78	730017.80	736835.12
11	99070.83	728441.84	735273.77
10	99066.87	726872.55	733719.09
9	99062.90	725309.87	732171.02
8	99058.92	723753.78	730629.54
7	99054.93	722204.22	729094.60
6	99050.94	720661.16	727566.16
5	99046.94	719124.56	726044.17
4	99042.93	717594.37	724528.59
3	99038.91	716070.56	723019.40
2	99034.88	714553.08	721516.53
1	99030.84	713041.90	720019.96
0	99026.80	711536.97	718529.65

	Sinus	Tangens	Secans
0	13917.31	14054.08	100982.76
1	13946.12	14083.74	100986.89
2	13974.92	14113.41	100991.03
3	14003.72	14143.08	100995.18
4	14032.52	14172.75	100999.34
5	14061.32	14202.43	101003.51
6	14090.12	14232.11	101007.69
7	14118.92	14261.79	101011.88
8	14147.72	14291.47	101016.07
9	14176.51	14321.15	101020.27
10	14205.31	14350.84	101024.48
11	14234.10	14380.53	101028.70
12	14262.89	14410.22	101032.93
13	14291.68	14439.91	101037.17
14	14320.47	14469.61	101041.42
15	14349.26	14499.31	101045.68
16	14378.05	14529.01	101049.95
17	14406.84	14558.71	101054.23
18	14435.62	14588.42	101058.41
19	14464.40	14618.13	101062.80
20	14493.19	14647.84	101067.10
21	14521.97	14677.55	101071.51
22	14550.75	14707.27	101075.73
23	14579.53	14736.99	101080.06
24	14608.30	14766.71	101084.40
25	14637.08	14796.44	101088.75
26	14665.85	14826.17	101093.11
27	14694.63	14855.90	101097.47
28	14723.40	14885.63	101101.84
29	14752.17	14915.36	101106.22
30	14780.94	14945.10	101110.61

	Sinus	Tangens	Secans
60	99026.80	711536.97	718529.65
59	99022.75	710038.26	717045.56
58	99018.69	708545.73	715567.64
57	99014.62	707059.34	714095.87
56	99010.54	705579.05	712630.19
55	99006.45	704104.82	711170.58
54	99002.36	702636.62	709717.00
53	98998.26	701174.41	708269.41
52	98994.15	699718.06	706827.77
51	98990.03	698267.81	705392.05
50	98985.90	696823.35	703962.20
49	98981.76	695384.73	702538.20
48	98977.62	693951.92	701120.01
47	98973.47	692524.89	699707.60
46	98969.31	691103.59	698300.92
45	98965.14	689687.99	696899.94
44	98960.96	688278.07	695504.64
43	98956.77	686873.78	694114.96
42	98952.57	685475.08	692730.89
41	98948.37	684081.96	691352.39
40	98944.16	682694.37	689979.42
39	98939.94	681312.27	688611.95
38	98935.71	679935.65	687249.95
37	98931.47	678564.46	685893.38
36	98927.23	677198.67	684542.22
35	98922.98	675838.26	683196.42
34	98918.72	674483.18	681855.97
33	98914.45	673133.41	680520.82
32	98910.17	671788.91	679190.95
31	98905.88	670449.66	677866.32
30	98901.58	669115.62	676546.91

	Sinus	Tangens	Secans
30	14780.94	14945.10	101110.61
31	14809.71	14974.84	101115.01
32	14838.48	15004.58	101119.42
33	14867.24	15034.33	101123.84
34	14896.01	15064.08	101128.27
35	14924.77	15093.83	101132.71
36	14953.53	15123.58	101137.15
37	14982.30	15153.33	101141.60
38	15011.06	15183.09	101146.06
39	15039.81	15212.85	101150.53
40	15068.57	15242.61	101155.01
41	15097.33	15272.38	101159.50
42	15126.08	15302.15	101164.00
43	15154.84	15331.92	101168.51
44	15183.59	15361.89	101173.03
45	15212.34	15391.47	101177.56
46	15241.09	15421.25	101182.09
47	15269.84	15451.03	101186.63
48	15298.58	15480.82	101191.18
49	15327.33	15510.61	101195.74
50	15356.07	15540.40	101200.31
51	15384.82	15570.19	101204.89
52	15413.56	15599.98	101209.48
53	15442.30	15629.78	101214.08
54	15471.04	15659.58	101218.69
55	15499.78	15689.38	101223.31
56	15528.51	15719.19	101227.93
57	15557.25	15749.00	101232.56
58	15585.98	15778.81	101237.20
59	15614.72	15808.62	101241.85
60	15643.45	15838.44	101246.51

Sinus	Tangens	Secans
98901.58	669115.62	676546.91
98897.28	667786.77	675232.68
98892.97	666463.07	673923.60
98888.65	665144.49	672619.65
98884.32	663831.00	671320.79
98879.98	662522.58	670026.99
98875.63	661219.19	668738.22
98871.28	659920.80	667454.46
98866.92	658627.39	666175.68
98862.55	657338.92	664901.84
98858.17	656055.38	663632.93
98853.78	654776.72	662368.90
98849.38	653502.93	661109.73
98844.98	652233.96	659855.40
98840.57	650969.81	658605.87
98836.15	649710.43	657361.12
98831.72	648455.81	656121.13
98827.28	647205.91	654885.86
98822.83	645960.70	653655.28
98818.38	644720.17	652429.38
98813.92	643484.28	651208.12
98809.45	642253.01	649991.48
98804.97	641026.33	648779.44
98800.48	639804.22	647571.95
98795.98	638586.65	646369.01
98791.48	637373.59	645170.59
98786.97	636165.02	643976.66
98782.45	634960.92	642787.19
98777.92	633761.26	641602.16
98773.38	632566.01	640421.54
98768.83	631375.15	639245.32

9	Sinus	Tangens	Secans
0	15643.45	15838.44	101246.
1	15672.18	15868.26	101251.
2	15700.91	15898.08	101255.
3	15729.63	15927.91	101260.
4	15758.36	15957.74	101265.
5	15787.08	15987.57	101269.
6	15815.81	16017.40	101274.
7	15844.53	16047.24	101279.
8	15873.25	16077.08	101284.
9	15901.97	16106.92	101288.
10	15930.69	16136.77	101293.
11	15959.40	16166.62	101298.
12	15988.12	16196.47	101303.
13	16016.83	16226.32	101307.5
14	16045.55	16256.17	101312.7
15	16074.26	16286.03	101317.5
16	16102.97	16315.89	101322.3
17	16131.67	16345.76	101327.1
18	16160 38	16375.63	101331.9
19	16189.09	16405.50	101336.7
20	16217.79	16435.37	101341.6
21	16246.50	16465.25	101346.4
22	16275.20	16495.13	101351.3
23	16303.90	16525.01	101356.1
24	16332.60	16554.89	101361.0
25	16361.29	16584.78	101365.9
26	16389.99	16614.67	101370.8
27	16418.68	16644.56	101375.7
28	16447.38	16674.46	101380.65
29	16476.07	16704.36	101385.57
30	16504.76	16734.26	101390.5

	Sinus	Tangens	Secans
	98768.83	631375.15	639245.32
	98764.28	630188.66	638073.47
	98759.72	629006.51	636905.95
	98755.15	627828.68	635742.76
	98750.57	626655.14	634583.86
	98745.98	625485.88	633429.23
	98741.38	624320.86	632278.84
	98736.77	623160.07	631132.69
	98732.16	622003.47	629990.73
	98727.54	620851.06	628852.95
	98722.91	619702.79	627719.33
	98718.27	618558.67	626589.84
	98713.62	617418.65	625464.46
	98708.97	616282.72	624343.16
	98704.31	615150.57	623225.94
	98699.64	614023.03	622112.75
	98694.96	612899.23	621003.59
	98690.27	611779.43	619898.43
	98685.57	610663.60	618797.25
	98680.86	609551.74	617700.03
	98676.15	608443.81	616606.74
	98671.43	607339.79	615517.36
	98666.70	606239.67	614431.89
	98661.96	605143.43	613350.28
	98657.21	604051.03	612272.53
	98652.46	602962.47	611198.61
	98647.70	601877.72	610128.50
	98642.93	600796.76	609062.19
2	98638.15	599719.57	607999.64
1	98633.36	598646.14	606940.85
0	98628.56	597576.44	605885.80

9	Sinus	Tangens	Secans
30	16504.76	16734.26	101390.5
31	16533.45	16764.16	101395.4
32	16562.14	16794.07	101400.3
33	16590.82	16823.98	101405.3
34	16619.51	16853.89	101410.3
35	16648.19	16883.81	101415.3
36	16676.87	16913.73	101420.2
37	16705.55	16943.65	101425.2
38	16734.23	16973.58	101430.2
39	16762.91	17003.51	101435.3
40	16791.59	17033.44	101440.3
41	16820.26	17063.37	101445.35
42	16848.94	17093.31	101450.35
43	16877.61	17123.25	101455.44
44	16906.28	17153.19	101460.50
45	16934.95	17183.14	101465.57
46	16963.62	17213.09	101470.64
47	16992.28	17243.04	101475.72
48	17020.95	17273.00	101480.81
49	17049.61	17302.96	101485.91
50	17078.28	17332.92	101491.02
51	17106.94	17362.88	101496.14
52	17135.60	17392.85	101501.27
53	17164.25	17422.82	101506.41
54	17192.91	17452.79	101511.56
55	17221.56	17482.77	101516.72
56	17250.22	17512.75	101521.89
57	17278.87	17542.73	101527.07
58	17307.52	17572.72	101532.26
59	17336.17	17602.71	101537.46
60	17364.82	17632.70	101542.67

Sinus	Tangens	Secans
98628.56	597576.44	605885.80
98623.75	596510.45	604834.45
98618.94	595448.15	603786.80
98614.12	594389.52	602742.82
98609.29	593334.55	601702.50
98604.45	592283.22	600665.81
98599.60	591235.50	599632.74
98594.74	590191.38	598603.26
98589.88	589150.84	597577.37
98585.01	588113.86	596555.04
98580.13	587080.42	595536.25
98575.24	586050.51	594520.98
98570.34	585024.10	593509.22
98565.44	584001.17	592500.95
98560.53	582981.72	591496.14
98555.61	581965.72	590494.79
98550.68	580953.15	589496.88
98545.74	579944.00	588502.38
98540.79	578938.25	587511.28
98535.83	577935.88	586523.56
98530.87	576936.88	585539.20
98525.90	575941.22	584558.20
98520.92	574948.89	583580.53
98515.93	573959.88	582606.17
98510.93	572974.16	581635.10
98505.92	571991.73	580667.32
98500.91	571012.56	579702.80
98495.89	570036.63	578741.53
98490.86	569063.94	577783.50
98485.82	568094.46	576828.67
98480.77	567128.18	575877.05

10	Sinus	Tangens	Secans
0	17364.82	17632.70	101542.
1	17393.46	17662.69	101547.
2	17422.11	17692.69	101553.
3	17450.75	17722.69	101558.
4	17479.39	17752.69	101563.
5	17508.03	17782.70	101568.
6	17536.67	17812.71	101574.
7	17565.31	17842.72	101579.
8	17593.95	17872.74	101584.
9	17622.58	17902.76	101589.
10	17651.21	17932.78	101595.
11	17679.84	17962.81	101600.
12	17708.47	17992.84	101605.
13	17737.10	18022.87	101611.
14	17765.73	18052.91	101616.
15	17794.35	18082.95	101621.
16	17822.98	18112.99	101627.
17	17851.60	18143.03	101632.5
18	17880.22	18173.08	101637.
19	17908.84	18203.13	101643.
20	17937.46	18233.18	101648.
21	17966.07	18263.24	101654.
22	17994.69	18293.30	101659.
23	18023.30	18323.36	101664.
24	18051.91	18353.43	101670.
25	18080.52	18383.50	101675.
26	18109.13	18413.57	101681.
27	18137.74	18443.65	101686.
28	18166.35	18473.73	101692.
29	18194.95	18503.81	101697.
30	18223.55	18533.90	101703.

Sinus	Tangens	Secans
98480.77	567128.18	575877.05
98475.71	566165.09	574928.61
98470.65	565205.16	573983.33
98465.58	564248.38	573041.21
98460.50	563294.74	572102.23
98455.41	562344.21	571166.36
98450.31	561396.80	570233.60
98445.21	560452.47	569303.93
98440.10	559511.21	568377.34
98434.98	558573.02	567453.80
98429.85	557637.86	566533.31
98424.71	556705.74	565615.84
98419.56	555776.63	564701.40
98414.40	554850.52	563789.95
98409.24	553927.40	562881.48
98404.07	553007.24	561975.99
98398.89	552090.05	561073.45
98393.70	551175.79	560173.86
98388.50	550264.46	559277.19
98383.29	549356.04	558383.43
98378.08	548450.52	557492.58
98372.86	547547.88	556604.60
98367.63	546648.12	555719.50
98362.39	545751.21	554837.26
98357.14	544857.15	553957.86
98351.89	543965.92	553081.29
98346.63	543077.50	552207.54
98341.36	542191.88	551336.59
98336.08	541309.06	550468.43
98330.79	540429.01	549603.05
98325.49	539551.72	548740.43

10	Sinus	Tangens	Secan
30	18223.55	18533.90	101703.
31	18252.15	18563.99	101708
32	18280.75	18594.08	101714
33	18309.35	18624.18	101719.
34	18337.95	18654.28	101725.
35	18366.54	18684.38	101730.
36	18395.13	18714.49	101736.
37	18423.73	18744.60	101741.
38	18452.32	18774.71	101747.
39	18480.91	18804.83	101752.
40	18509.49	18834.95	101758.
41	18538.08	18865.07	101763.
42	18566.66	18895.20	101769.
43	18595.24	18925.33	101775.
44	18623.82	18955.46	101780.
45	18652.40	18985.55	101786.
46	18680.98	19015.73	101791.
47	18709.56	19045.87	101797.
48	18738.13	19076.02	101803.
49	18766.70	19106.17	101808.
50	18795.27	19136.32	101814.
51	18823.84	19166.48	101820.
52	18852.41	19196.64	101825.
53	18880.98	19226.80	101831.
54	18909.54	19256.96	101837.2
55	18938.11	19287.13	101842.
56	18966.67	19317.30	101848.7
57	18995.23	19347.48	101854.4
58	19023.79	19377.66	101860.1
59	19052.34	19407.84	101865.9
60	19080.90	19438.03	101871.6

Sinus	Tangens	Secans
98325.49	539551.72	548740.43
98320.18	538677.18	547880.55
98314.87	537805.38	547023.42
98309.55	536936.30	546169.01
98304.22	536069.93	545317.31
98298.88	535206.26	544468.31
98293.53	534345.27	543621.93
98288.17	533486.96	542778.35
98282.81	532631.31	541937.37
98277.44	531778.30	541099.03
98272.06	530927.93	540263.33
98266.67	530080.18	539430.26
98261.27	529235.05	538599.79
98255.87	528392.51	537771.92
98250.46	527552.55	536946.64
98245.04	526715.17	536123.93
98239.61	525880.35	535303.79
98234.17	525048.09	534486.20
98228.72	524218.36	533671.14
98223.27	523391.16	532858.61
98217.81	522566.47	532048.60
98212.34	521744.28	531241.09
98206.86	520924.59	530436.08
98201.37	520107.38	529633.54
98195.87	519292.64	528833.47
98190.36	518480.35	528035.87
98184.85	517670.51	527240.70
98179.33	516863.11	526447.98
98173.80	516058.13	525657.68
98168.26	515255.57	524869.79
98162.71	514455.40	524084.31

II	Sinus	Tangens	Secan
0	19080.90	19438.03	101871
1	19109.45	19468,22	101877
2	19138.00	19498.41	101883
3	19166.55	19528.61	101888
4	19195.10	19558.81	101894
5	19223.65	19589.01	101900
6	19252.20	19619.22	101906
7	19280.74	19649.43	101912
8	19309.28	19679.64	101918
9	19337.82	19709.86	101923
10	19366.36	19740.08	101929
11	19394.90	19770.30	101935
12	19423.44	19800.53	101941
13	19451.97	19830.76	101947
14	19480.50	19861.00	101953
15	19509.03	19891.24	101959
16	19537.56	19921.48	101965
17	19566.09	19951.72	101970
18	19594.61	19981.97	101976
19	19623.14	20012.22	101982
20	19651.66	20042.48	101988
21	19680.18	20072.74	101994
22	19708.70	20103.00	102000
23	19737.22	20133.27	102006
24	19765.73	20163.54	102012
25	19794.25	20193.81	102018
26	19822.76	20224.09	102024
27	19851.27	20254.37	102030
28	19879.78	20284.65	102036
89	19908.29	20314.94	102042
30	19936.79	20345.23	102048

Sinus	Tangens	Secans
98162.71	514455.40	524084.31
98157.16	513657.63	523301.21
98151.60	512862.24	522520.50
98146.03	512069.21	521742.16
98140.45	511278.55	520966.18
98134.86	510490.24	520192.54
98129.26	509704.26	519421.25
98123.66	508920.61	518652.28
98118.05	508139.28	517885.63
98112.43	507360.25	517121.28
98106.80	506583.52	516359.24
98101.16	505809.07	515599.48
98095.51	505036.90	514841.99
98089.86	504267.00	514086.77
98084.20	503499.35	513333.81
98078.53	502733.95	512583.09
98072.85	501970.78	511834.61
98067.16	501209.84	511088.35
98061.46	500451.11	510344.31
98055.76	499694.59	509602.48
98050.05	498940.27	508862.84
98044.33	498188.13	508125.39
98038.60	497438.17	507390.12
98032.86	496690.37	506657.01
98027.11	495944.74	505926.06
98021.36	495201.25	505197.26
98015.60	494459.90	504470.60
98009.83	493720.68	503746.07
98004.05	492983.58	503023.67
97998.26	492248.59	502303.37
97992.47	491515.70	501585.17

II	Sinus	Tangens	Seca
30	19936.79	20345.23	102048
31	19965.30	20375.52	102054
32	19993.80	20405.82	102060
33	20022.30	20436.12	102066
34	20050.80	20466.43	102072
35	20079.30	20496.74	102078
36	20107.79	20527.05	102085
37	20136.29	20557.37	102091
38	20164.78	20587.69	102097
39	20193.27	20618.01	102103
40	20221.76	20648.34	102109
41	20250.24	20678.67	102115
42	20278.73	20709.00	102121
43	20307.21	20739.34	102127
44	20335.69	20769.68	102134
45	20364.17	20800.03	102140
46	20392.65	20830.38	102146
47	20421.13	20860.73	102152
48	20449.61	20891.09	102158
49	20478.08	20921.45	102165
50	20506.55	20951.81	102171
51	20535.02	20982.18	102177
52	20563.49	21012.55	102183
53	20591.95	21042.93	102190
54	20620.42	21073.31	102196
55	20648.88	21103.69	102202
56	20677.34	21134.07	102208
57	20705.80	21164.46	102215
58	20734.26	21194.85	102221
59	20762.71	21225.25	102227
60	20791.17	21255.65	102234

Sinus	Tangens	Secans
97992.47	491515.70	501585.17
97986.67	490784.91	500869.07
97980.86	490056.21	500155.05
97975.04	489329.56	499443.11
97969.21	488604.99	498733.23
97963.37	487882.48	498025.41
97957.52	487162.01	497319.64
97951.67	486443.59	496615.91
97945.81	485727.19	495914.21
97939.94	485012.82	495214.53
97934.06	484300.45	494516.87
97928.17	483590.10	493821.20
97922.28	482881.74	493127.54
97916.38	482175.36	492435.86
97910.47	481470.96	491746.16
97904.55	480768.54	491058.44
97898.62	480068.08	490372.67
97892.68	479369.57	489688.86
97886.74	478673.00	489007.00
97880.79	477978.37	488327.07
97874.83	477285.67	487649.07
97868.86	476594.90	486972.99
97862.88	475906.03	486298.83
97856.89	475219.07	485626.57
97850.90	474534.01	484956.21
97844.90	473850.83	484287.74
97838.89	473169.54	483621.14
97832.87	472490.12	482956.43
97826.84	471812.56	482293.57
97820.80	471136.86	481632.58
97814.76	470463.01	480973.43

12	Sinus	Tangens	Secans
0	20791.17	21255.65	102234.0
1	20819.62	21286.06	102240.4
2	20848.07	21316.47	102246.7
3	20876.52	21346.88	102253.0
4	20904.97	21377.30	102259.4
5	20933.41	21407.72	102265.7
6	20961.86	21438.14	102272.1
7	20990.30	21468.57	102278.5
8	21018.74	21499.00	102284.9
9	21047.18	21529.44	102291.3
10	21075.61	21559.88	102297.7
11	21104.05	21590.32	102304.1
12	21132.48	21620.77	102310.5
13	21160.91	21651.22	102317.0
14	21189.34	21681.67	102323.4
15	21217.77	21712.13	102329.9
16	21246.19	21742.59	102336.4
17	21274.62	21773.06	102342.8
18	21303.04	21803.53	102349.3
19	21331.46	21834.00	102355.8
20	21359.88	21864.48	102362.3
21	21388.29	21894.96	102368.9
22	21416.71	21925.44	102375.4
23	21445.12	21955.93	102381.9
24	21473.53	21986.42	102388.5
25	21501.94	22016.92	102395.0
26	21530.35	22047.42	102401.6
27	21558.76	22077.93	102408.1
28	21587.16	22108.44	102414.7
29	21615.56	22138.95	102421.3
30	21643.96	22169.47	102427.9

Sinus	Tangens	Secans
97814.76	470463.01	480973.43
97808.71	469791.00	480316.13
97802.65	469120.83	479660.66
97796.58	468452.48	479007.02
97790.50	467785.95	478355.20
97784.41	467121.24	477705.19
97778.32	466458.32	477056.99
97772.22	465797.21	476410.58
97766.11	465137.88	475765.96
97759.99	464480.34	475123.12
97753.86	463824.57	474482.06
97747.73	463170.56	473842.77
97741.59	462518.32	473205.23
97735.44	461867.83	472569.45
97729.28	461219.08	471935.42
97723.11	460572.07	471303.13
97716.93	459926.80	470672.56
97710.75	459283.25	470043.72
97704.56	458641.41	469416.60
97698.36	458001.29	468791.19
97692.15	457362.87	468167.48
97685.93	456726.14	467545.48
97679.70	456091.11	466925.16
97673.47	455457.76	466306.52
97667.23	454826.08	465689.56
97660.98	454196.08	465074.27
97654.72	453567.73	464460.64
97648.45	452941.05	463848.67
97642.17	452316.01	463238.35
97635.89	451692.61	462629.67
97629.60	451070.85	462022.63

	Sinus	Tangens	Secans
30	21643.96	22169.47	102427.9
31	21672.36	22199.99	102434.5
32	21700.76	22230.51	102441.1
33	21729.15	22261.04	102447.8
34	21757.54	22291.57	102454.4
35	21785.93	22322.11	102461.1
36	21814.32	22352.65	102467.7
37	21842.71	22383.19	102474.4
38	21871.10	22413.74	102481.1
39	21899.48	22444.29	102487.8
40	21927.86	22474.85	102494.4
41	21956.24	22505.41	102501.1
42	21984.62	22535.97	102507.9
43	22013.00	22566.54	102514.6
44	22041.37	22597.11	102521.3
45	22069.74	22627.69	102528.0
46	22098.11	22658.27	102534.8
47	22126.48	22688.85	102541.6
48	22154.85	22719.44	102548.3
49	22183.21	22750.03	102555.1
50	22211.58	22780.63	102561.9
51	22239.94	22811.23	102568.7
52	22268.30	22841.83	102575.5
53	22296.66	22872.44	102582.3
54	22325.01	22903.05	102589.2
55	22353.37	22933.67	102596.0
56	22381.72	22964.29	102602.8
57	22410.07	22994.92	102609.7
58	22438.41	23025.55	102616.6
59	22466.76	23056.18	102623.5
60	22495.11	23086.82	102630.3

	Sinus	Tangens	Secans
0	97629.60	451070.85	462022.63
0	97623.30	450450.72	461417.22
3	97616.99	449832.21	460813.43
7	97610.67	449215.32	460211.26
6	97604.35	448600.04	459610.70
5	97598.02	447986.36	459011.74
4	97591.68	447374.28	458414.39
3	97585.33	446763.79	457818.62
2	97578.97	446154.89	457224.44
1	97572.60	445547.56	456631.83
0	97566.23	444941.81	456040.80
0	97559.85	444337.62	455451.34
8	97553.46	443734.99	454863.44
7	97547.06	443133.92	454277.09
6	97540.65	442534.39	453692.29
5	97534.23	441936.41	453109.03
4	97527.81	441339.96	452527.30
3	97521.38	440745.04	451947.11
2	97514.94	440151.64	451368.44
1	97508.49	439559.76	450791.29
0	97502.03	438969.40	450215.65
9	97495.56	438380.54	449641.52
8	97489.09	437793.17	449068.89
7	97482.61	437207.31	448497.75
6	97476.12	436622.93	447928.10
5	97469.62	436040.03	447359.93
4	97463.11	435458.61	446793.24
3	97456.60	434878.66	446228.03
2	97450.08	434300.18	445664.28
1	97443.55	433723.16	445101.98
0	97437.01	433147.59	444541.15

13	Sinus	Tangens	Secans
0	22495.11	23086.82	102630.3
1	22523.45	23117.46	102637.2
2	22551.79	23148.11	102644.2
3	22580.13	23178.76	102651.1
4	22608.46	23209.41	102658.0
5	22636.80	23240.07	102664.9
6	22665.13	23270.73	102671.9
7	22693.46	23301.40	102678.9
8	22721.79	23332.07	102685.8
9	22750.12	23362.74	102692.8
10	22778.44	23393.42	102699.8
11	22806.77	23424.10	102706.8
12	22835.09	23454.79	102713.8
13	22863.41	23485.48	102720.8
14	22891.72	23516.17	102727.8
15	22920.04	23546.87	102734.87
16	22948.35	23577.58	102741.91
17	22976.66	23608.29	102748.96
18	23004.97	23639.00	102756.02
19	23033.28	23669.72	102763.09
20	23061.59	23700.44	102770.17
21	23089.89	23731.16	102777.26
22	23118.19	23761.89	102784.36
23	23146.49	23792.62	102791.47
24	23174.79	23823.36	102798.59
25	23203.09	23854.10	102805.72
26	23231.38	23884.85	102812.86
27	23259.67	23915.60	102820.01
28	23287.96	23946.35	102827.17
29	23316.25	23977.11	102834.34
30	23344.54	24007.87	102841.52

	Sinus	Tangens	Secans
90	97437.01	433147.59	444541.15
89	97430.46	432573.47	443981.76
88	97423.90	432000.79	443423.82
87	97417.34	431429.55	442867.31
86	97410.77	430859.74	442312.24
85	97404.19	430291.36	441758.59
4	97397.60	429724.40	441206.37
3	97391.00	429158.85	440655.56
2	97384.39	428594.72	440106.16
1	97377.78	428031.99	439558.17
0	97371.16	427470.66	439011.58
89	97364.53	426910.72	438466.38
88	97357.89	426352.18	437922.57
87	97351.24	425795.01	437380.15
86	97344.58	425239.23	436839.10
85	97337.92	424684.82	436299.43
84	97331.25	424131.77	435761.13
83	97324.57	423580.09	435224.19
82	97317.88	423029.77	434688.61
81	97311.18	422480.80	434154.38
80	97304.48	421933.18	433621.50
79	97297.77	421386.90	433089.96
78	97291.05	420841.96	432559.77
77	97284.32	420298.35	432030.90
76	97277.58	419756.06	431503.36
75	97270.84	419215.10	430977.15
74	97264.09	418675.46	430452.25
73	97257.33	418137.13	429928.67
72	97250.56	417600.11	429406.40
71	97243.78	417064.40	428885.43
70	97236.99	416529.98	428365.76

	Sinus	Tangens	Secans
30	23344.54	24007.87	102841.5
31	23372.82	24038.64	102848.7
32	23401.10	24069.41	102855.9
33	23429.38	24100.19	102863.1
34	23457.66	24130.97	102870.3
35	23485.94	24161.76	102877.5
36	23514.21	24192.55	102884.8
37	23542.48	24223.34	102892.0
38	23570.75	24254.14	102899.3
39	23599.02	24284.94	102906.5
40	23627.29	24315.75	102913.8
41	23655.55	24346.56	102921.1
42	23683.81	24377.37	102928.4
43	23712.07	24408.19	102935.7
44	23740.33	24439.01	102943.0
45	23768.59	24469.84	102950.3
46	23796.84	24500.67	102957.6
47	23825.10	24531.51	102965.0
48	23853.35	24562.35	102972.3
49	23881.59	24593.20	102979.7
50	23909.84	24624.05	102987.1
51	23938.08	24654.91	102994.4
52	23966.33	24685.77	103001.8
53	23994.57	24716.63	103009.2
54	24022.80	24747.50	103016.6
55	24051.04	24778.37	103024.1
56	24079.27	24809.25	103031.5
57	24107.51	24840.13	103038.9
58	24135.74	24871.02	103046.4
59	24163.96	24901.91	103053.8
60	24192.19	24932.80	103061.3

Sinus	Tangens	Secans
97236.99	416529.98	428365.76
97230.19	415996.85	427847.38
97223.39	415465.01	427330.29
97216.58	414934.46	426814.49
97209.76	414405.19	426299.96
97202.93	413877.19	425786.71
97196.09	413350.46	425274.74
97189.25	412824.99	424764.02
97182.40	412300.79	424254.57
97175.54	411777.84	423746.37
97168.67	411256.14	423239.43
97161.79	410735.69	422733.73
97154.91	410216.49	422229.28
97148.02	409698.52	421726.06
97141.12	409181.78	421224.08
97134.21	408666.27	420723.33
97127.29	408151.99	420223.80
97120.36	407638.92	419725.49
97113.43	407127.07	419228.40
97106.49	406616.43	418732.52
97099.54	406107.00	418237.85
97092.58	405598.77	417744.38
97085.61	405091.74	417252.10
97078.63	404585.90	416761.02
97071.65	404081.25	416271.14
97064.66	403577.79	415782.43
97057.66	403075.50	415294.91
97050.65	402574.40	414808.56
97043.63	402074.46	414323.39
97036.60	401575.70	413839.39
97029.57	401078.09	413356.55

	Sinus	Tangens	Secans
0	24192.19	24932.80	103061.3
1	24220.41	24963.70	103068.8
2	24248.63	24994.60	103076.3
3	24276.85	25025.51	103083.8
4	24305.07	25056.42	103091.3
5	24333.29	25087.34	103098.8
6	24361.50	25118.26	103106.3
7	24389.71	25149.19	103113.9
8	24417.92	25180.12	103121.4
9	24446.13	25211.06	103129.0
10	24474.33	25242.00	103136.6
11	24502.54	25272.94	103144.1
12	24530.74	25303.89	103151.7
13	24558.94	25334.84	103159.3
14	24587.13	25365.80	103166.9
15	24615.33	25396.76	103174.5
16	24643.52	25427.73	103182.2
17	24671.71	25458.70	103189.8
18	24699.90	25489.68	103197.5
19	24728.09	25520.66	103205.1
20	24756.27	25551.65	103212.8
21	24784.45	25582.64	103220.5
22	24812.63	25613.63	103228.1
23	24840.81	25644.63	103235.8
24	24868.99	25675.63	103243.5
25	24897.16	25706.64	103251.3
26	24925.33	25737.66	103259.0
27	24953.50	25768.68	103266.7
28	24981.67	25799.70	103274.5
29	25009.84	25830.73	103282.2
30	25038.00	25861.76	103290.0

	Sinus	Tangens	Secans
0	97029.57	4010078.09	4133356.55
9	97022.53	4005781.65	4128774.87
8	97015.48	4000086.36	4123394.35
7	97008.42	3995992.23	4119114.98
6	97001.35	3990999.24	4114436.75
5	96994.28	3986007.39	4109959.67
4	96987.20	3981116.69	4104483.74
3	96980.11	3976227.12	4100008.93
2	96973.01	3971338.68	4095535.26
1	96965.90	3966451.37	4090962.72
0	96958.79	3961565.18	4085591.30
9	96951.67	3956680.11	4081221.00
8	96944.54	3951796.15	4076851.81
7	96937.40	3947913.31	4071883.74
6	96930.25	3942231.57	4067416.77
5	96923.09	3937350.94	4062950.91
4	96915.92	3932771.41	4057786.15
3	96908.75	3927792.97	4053322.49
2	96901.57	3923115.63	4048859.92
1	96894.38	3918339.37	4043998.44
0	96887.18	3913564.20	4039338.04
9	96879.98	3908890.11	4034778.72
8	96872.77	3904117.10	4030220.48
7	96865.55	3899345.16	4025663.32
6	96858.32	3894574.29	4021107.22
5	96851.08	3890004.48	4016552.19
4	96843.83	3885335.74	4011998.23
3	96836.57	3880668.05	4007445.32
2	96829.31	3876001.42	4002893.47
1	96822.04	3871335.84	3998342.67
0	96814.76	3866671.31	3993792.92

	Sinus	Tangens	Secans
30	25038.00	25861.76	103290.
31	25066.16	25892.80	103297.
32	25094.32	25923.84	103305.
33	25122.48	25954.88	103313.
34	25150.63	25985.93	103321.
35	25178.79	26016.99	103329.
36	25206.94	26048.05	103336.
37	25235.08	26079.11	103344.
38	25263.23	26110.18	103352.
39	25291.37	26141.26	103360.
40	25319.52	26172.34	103368.
41	25347.66	26203.42	103376.
42	25375.79	26234.51	103383.
43	25403.93	26265.60	103391.
44	25432.06	26296.70	103399.
45	25460.19	26327.80	103407.
46	25488.32	26358.91	103415.
47	25516.45	26390.02	103423.
48	25544.58	26421.14	103431.
49	25572.70	26452.26	103439.
50	25600.82	26483.39	103447.
51	25628.94	26514.52	103455.
52	25657.05	26545.66	103463.
53	25685.17	26576.80	103471.
54	25713.28	26607.94	103479.
55	25741.35	26639.09	103487.
56	25769.50	26670.25	103495.
57	25797.60	26701.41	103503.4
58	25825.70	26732.57	103511.5
59	25853.81	26763.74	103519.5
60	25881.90	26794.92	103527.6

Sinus	Tangens	Secans
96814.76	386671.31	399392.92
96807.47	386207.82	398944.21
96800.18	385745.37	398496.54
96792.88	385283.96	398049.91
96785.57	384823.58	397604.31
96778.25	384364.24	397159.75
96770.92	383905.91	396716.21
96763.58	383448.61	396273.69
96756.23	382992.33	395832.19
96748.88	382537.07	395391.71
96741.52	382082.81	394952.24
96734.15	381629.57	394513.79
96726.77	381177.33	394076.33
96719.38	380726.09	393639.88
96711.99	380275.85	393204.43
96704.59	379826.61	392769.97
96697.18	379378.35	392336.51
96689.76	378931.09	391904.03
96682.33	378484.81	391472.54
96674.90	378039.51	391042.03
96667.46	377595.19	390612.50
96660.01	377151.85	390183.95
96652.55	376709.47	389756.37
96645.08	376268.07	389329.76
96637.60	375827.63	388904.11
96630.12	375388.15	388479.43
96622.63	374949.63	388055.70
96615.13	374512.07	387632.93
96607.62	374075.46	387211.12
96600.10	373639.80	386790.25
96592.58	373205.08	386370.33

15	Sinus	Tangens	Seca
0	25881.90	26794.92	103527
1	25910.00	26826.10	103535
2	25938.10	26857.28	103543
3	25966.19	26888.47	103551
4	25994.28	26919.67	103559
5	26022.37	26950.87	103568
6	26050.45	26982.07	103576.
7	26078.53	27013.28	103584.
8	26106.61	27044.49	103592.
9	26134.69	27075.71	103600.
10	26162.77	27106.93	103608.
11	26190.85	27138.16	103616.
12	26218.92	27169.40	103625.
13	26246.99	27200.64	103633.
14	26275.06	27231.88	103641.
15	26303.12	27263.13	103649.
16	26331.18	27294.38	103658.
17	26359.24	27325.64	103666.
18	26387.30	27356.90	103674.
19	26415.36	27388.17	103682.
20	26443.42	27419.44	103691.
21	26471.47	27450.72	103699.
22	26499.52	27482.01	103707.
23	26527.57	27513.30	103715.
24	26555.61	27544.59	103724.
25	26583.65	27575.89	103732.
26	26611.69	27607.19	103740.
27	26639.73	27638.50	103749.
28	26667.77	27669.81	103757.
29	26695.81	27701.13	103765.
30	26723.84	27732.45	103774.

Sinus	Tangens	Secans
96592.58	373205.08	386370.33
96585.05	372771.31	385951.35
96577.51	372338.47	385533.32
96569.96	371906.58	385116.22
96562.40	371475.61	384700.05
96554.83	371045.58	384284.82
96547.26	370616.48	383870.51
96539.68	370188.30	383457.13
96532.09	369761.03	383044.67
96524.49	369334.69	382633.13
96516.88	368909.27	382222.51
96509.27	368484.75	381812.80
96501.65	368061.15	381403.99
96494.02	367638.45	380996.10
96486.38	367216.65	380589.11
96478.73	366795.75	380183.01
96471.07	366375.75	379777.82
96463.41	365956.65	379373.52
96455.74	365538.44	378970.11
96448.06	365121.11	378567.60
96440.37	364704.67	378165.96
96432.67	364289.11	377765.22
96424.97	363874.44	377365.35
96417.26	363460.64	376966.36
96409.54	363047.71	376568.24
96401.81	362635.66	376171.00
96394.07	362224.47	375774.62
96386.33	361814.15	375379.11
96378.58	361404.69	374984.47
96370.82	360996.09	374590.68
96363.05	360588.35	374197.75

15	Sinus	Tangens	Secans
30	26723.84	27732.45	103774.
31	26751.87	27763.78	103782.
32	26779.89	27795.12	103790.
33	26807.92	27826.46	103799.
34	26835.94	27857.80	103807.
35	26863.96	27889.15	103816.
36	26891.98	27920.50	103824.
37	26920.00	27951.86	103833.
38	26948.01	27983.22	103841.
39	26976.02	28014.59	103849.
40	27004.03	28045.97	103858.
41	27032.04	28077.35	103866.
42	27060.04	28108.73	103875.
43	27088.05	28140.12	103883.
44	27116.05	28171.52	103892.
45	27144.04	28202.92	103900.
46	27172.04	28234.32	103909.
47	27200.03	28265.73	103918.
48	27228.02	28297.15	103926.
49	27256.01	28328.57	103935.
50	27284.00	28359.99	103943.
51	27311.98	28391.42	103952.
52	27339.96	28422.86	103960.
53	27367.94	28454.30	103969.
54	27395.92	28485.75	103978.
55	27423.90	28517.20	103986.
56	27451.87	28548.66	103995.
57	27479.84	28580.12	104003.
58	27507.81	28611.59	104012.
59	27535.78	28643.06	104021.
60	27563.74	28674.54	104029.

Sinus	Tangens	Secans
96363.05	360588.35	374197.75
96355.27	360181.46	373805.68
96347.48	359775.43	373414.46
96339.69	359370.24	373024.09
96331.89	358965.90	372634.57
96324.08	358562.41	372245.89
96316.26	358159.75	371858.05
96308.43	357757.94	371471.05
96300.59	357356.96	371084.89
96292.75	356956.81	370699.56
96284.90	356557.49	370315.06
96277.04	356159.00	369931.39
96269.17	355761.33	369548.54
96261.30	355364.49	369166.52
96253.42	354968.46	368785.32
96245.53	354573.25	368404.93
96237.63	354178.86	368025.36
96229.72	353785.28	367646.60
96221.80	353392.51	367268.65
96213.87	353000.54	366891.51
96205.94	352609.38	366515.18
96198.00	352219.02	366139.64
96190.05	351829.46	365764.91
96182.09	351440.70	365390.97
96174.13	351052.73	365017.83
96166.16	350665.55	364645.48
96158.18	350279.16	364273.92
96150.19	349893.56	363903.15
96142.19	349508.74	363533.16
96134.18	349124.70	363163.95
96126.17	348741.44	362795.53

16	Sinus	Tangens	Secan
0	27563.74	28674.54	104025
1	27591.70	28706.02	104038
2	27619.65	28737.51	104047
3	27647.61	28769.00	104056
4	27675.56	28800.50	104064
5	27703.52	28832.01	104073
6	27731.47	28863.52	104082
7	27759.41	28895.03	104090
8	27787.36	28926.55	104095
9	27815.30	28958.08	104108
10	27843.24	28989.61	104117
11	27871.18	29021.14	104126
12	27899.11	29052.68	104134
13	27927.04	29084.23	104143
14	27954.97	29115.78	104152
15	27982.90	29147.34	104161
16	28010.83	29178.90	104170
17	28038.75	29210.47	104179
18	28066.67	29242.05	104187
19	28094.59	29273.63	104196
20	28122.51	29305.21	104205
21	28150.42	29336.80	104214
22	28178.33	29368.39	104223
23	28206.24	29399.99	104232
24	28234.15	29431.60	104241
25	28262.05	29463.21	104250
26	28289.95	29494.83	104259
27	28317.85	29526.45	104267
28	28345.75	29558.08	104276
29	28373.64	29589.71	104285
30	28401.53	29621.35	104294

Sinus	Tangens	Secans
96126.17	348741.44	362795.53
96118.15	348358.96	362427.88
96110.12	347977.26	362061.01
96102.08	347596.32	361694.90
96094.03	347216.16	361329.57
96085.98	346836.76	360965.01
96077.92	346458.13	360601.21
96069.85	346080.26	360238.18
96061.77	345703.15	359875.90
96053.68	345326.79	359514.39
96045.58	344951.20	359153.63
96037.48	344576.35	358793.62
96029.37	344202.26	358434.37
96021.25	343828.91	358075.86
96013.12	343456.31	357718.10
96004.98	343084.46	357361.08
95996.84	342713.34	357004.81
95988.69	342342.97	356649.28
95980.53	341973.33	356294.48
95972.36	341604.43	355940.42
95964.18	341236.26	355587.10
95956.00	340868.82	355234.50
95947.81	340502.10	354882.63
95939.61	340136.12	354531.49
95931.40	339770.85	354181.07
95923.18	339406.31	353831.38
95914.95	339042.49	353482.40
95906.72	338679.38	453134.14
95898.48	338316.99	352786.60
95890.23	337955.31	352439.77
95881.97	337594.34	352093.65

16	Sinus	Tangens	Secat
30	28401.53	29621.35	10429
31	28429.42	29652.99	10430
32	28457.31	29684.64	10431
33	28485.20	29716.30	10432
34	28513.08	29747.96	10433
35	28540.96	29779.62	10433
36	28568.84	29811.29	10434
37	28596.71	29842.97	10435
38	28624.58	29874.65	10436
39	28652.45	29906.34	10437
40	28680.32	29938.03	10438
41	28708.19	29969.73	10439
42	28736.05	30001.44	10440
43	28763.91	30033.15	10441
44	28791.77	30064.86	10442
45	28819.63	30096.58	10443
46	28847.48	30128.31	10444
47	28875.33	30160.04	10444
48	28903.18	30191.78	10445
49	28931.03	30223.52	10446
50	28958.87	30255.27	10447
51	28986.71	30287.03	10448
52	29014.55	30318.79	10449
53	29042.39	30350.55	10450
54	29070.22	30382.32	10451
55	29098.05	30414.10	10452
56	29125.88	30445.88	10453
57	29153.71	30477.67	10454
58	29181.53	30509.46	10455
59	29209.35	30541.26	10455
60	29237.17	30573.07	10456

Sinus	Tangens	Secans
95881.97	337594.34	352093.65
95873.70	337234.08	351748.24
95865.43	336874.53	351403.54
95857.15	336515.68	351059.54
95848.86	336157.53	350716.25
95840.56	335800.08	350373.65
95832.25	335443.33	350031.75
95823.94	335087.28	349690.55
95815.62	334731.91	349350.04
95807.29	334377.24	349010.23
95798.95	334023.26	348671.10
95790.60	333669.97	348332.67
95782.25	333317.36	347994.92
95773.89	332965.43	347657.85
95765.52	332614.19	347321.46
95757.14	332263.62	346985.76
95748.75	331913.73	346650.73
95740.35	331564.52	346316.37
95731.95	331215.98	345982.69
95723.54	330868.11	345649.69
95715.12	330520.91	345317.35
95706.69	330174.38	344985.68
95698.25	329828.51	344654.67
95689.81	329483.30	344324.33
95681.36	329138.76	343994.65
95672.90	328794.87	343665.63
95664.43	328451.64	343337.27
95655.95	328109.07	343009.56
95647.47	327767.15	342682.51
95638.98	327425.88	342356.11
95630.48	327085.26	342030.36

17	Sinus	Tangens	Secan
0	29237.17	30573.07	10456
1	29264.99	30604.88	10457
2	29292.80	30636.69	10458
3	29320.61	30668.51	10459
4	29348.42	30700.34	10460
5	29376.23	30732.18	10461
6	29404.03	30764.02	10462
7	29431.83	30795.86	10463
8	29459.63	30827.71	10464
9	29487.43	30859.57	10465
10	29515.22	30891.43	10466
11	29543.01	30923.30	10467
12	29570.80	30955.17	10468
13	29598.59	30987.05	10469
14	29626.38	31018.93	10470
15	29654.16	31050.82	10470
16	29681.94	31082.72	10471
17	29709.71	31114.62	10472
18	29737.49	31146.53	10473
19	29765.26	31178.44	10474
20	29793.03	31210.36	10475
21	29820.79	31242.29	10476
22	29848.56	31274.22	10477
23	29876.32	31306.16	10478
24	29904.08	31338.10	10479
25	29931.84	31370.05	10480
26	29959.59	31402.00	10481
27	29987.34	31433.96	10482
28	30015.09	31465.93	10483
29	30042.84	31497.90	10484
30	30070.58	31529.88	10485

Sinus	Tangens	Secans
95630.48	327085.26	342030.36
95621.97	326745.29	341705.26
95613.45	326405.96	341380.80
95604.92	326067.28	341056.99
95596.39	325729.24	340733.82
95587.85	325391.84	340411.30
95579.30	325055.08	340089.41
95570.74	324718.95	339768.16
95562.17	324383.46	339447.54
95553.60	324048.60	339127.55
95545 02	323714.38	338808.20
95536.43	323380.78	338489.48
95527.83	323047.80	338171.38
95519.22	322715.46	337853.91
95510.61	322383.73	337537.07
95501.99	322052.63	337220.84
95493.36	321722.15	336905.24
95484.72	321392.28	336590.26
95476.07	321063.04	336275.89
95467.42	320734.40	335962.14
95458.76	320406.38	335649.00
95450.09	320078.97	335336.47
95441.41	319752.17	335024.55
95432.72	319425.98	334713.24
95424.03	319100.39	334402.54
95415.33	318775.40	334092.44
95406.62	318451.02	333782.94
95397.90	318127.24	333474.05
95389.17	317804.06	333165.75
95380.43	317481.47	332858.05
95371.69	317159.48	332550.95

17	Sinus	Tangens	Secans
30	30070.58	31529.88	104852.
31	30098.32	31561.86	104862.
32	30126.06	31593.85	104872.
33	30153.80	31625.85	104881.
34	30181.53	31657.85	104891.
35	30209.26	31689.86	104901.
36	30236.99	31721.87	104910.
37	30264.71	31753.89	104920.
38	30292.44	31785.91	104930.
39	30320.16	31817.94	104939.
40	30347.88	31849.98	104949.
41	30375.59	31882.02	104959.
42	30403.31	31914.07	104969.
43	30431.02	31946.13	104978.
44	30458.72	31978.19	104988.
45	30486.43	32010.25	104998.
46	30514.13	32042.32	105008.
47	30541.83	32074.40	105017.
48	30569.53	32106.49	105027.
49	30597.23	32138.58	105037.
50	30624.92	32170.67	105047.
51	30652.61	32202.77	105057.
52	30680.29	32234.88	105067.
53	30707.98	32267.00	105076.
54	30735.66	32299.12	105086.
55	30763.34	32331.25	105096.
56	30791.02	32363.38	105106.
57	30818.69	32395.52	105116.
58	30846.36	32427.66	105126.
59	30874.03	32459.81	105136.
60	30901.70	32491.97	105146.

Sinus	Tangens	Secans
95371.69	317159.48	332550.95
95362.94	316838.08	332244.44
95354.18	316517.28	331938.53
95345.41	316197.06	331633.20
95336.64	315877.44	331328.47
95327.86	315558.40	331024.32
95319.07	315239.94	330720.76
95310.27	314922.07	330417.78
95301.46	314604.78	330115.39
95292.64	314288.07	329813.57
95283.82	313971.94	329512.34
95274.99	313656.39	329211.68
95266.15	313341.41	328911.60
95257.30	313027.01	328612.09
95248.44	312713.17	328313.16
95239.58	312399.91	328014.79
95230.71	312087.22	327717.00
95221.83	311775.09	327419.77
95212.94	311463.53	327123.11
95204.04	311152.54	326827.02
95195.14	310842.10	326531.49
95186.23	310532.23	326236.52
95177.31	310222.91	325942.11
95168.38	309914.16	325648.25
95159.44	309605.96	325354.96
95150.49	309298.31	325062.22
95141.54	308991.22	324770.03
95132.58	308684.68	324478.40
95123.61	308378.69	324187.32
95114.63	308073.25	323896.78
95105.65	307768.35	323606.80

18	Sinus	Tangens	Secans
0	30901.70	32491.97	105146.2
1	30929.36	32524.13	105156.1
2	30957.02	32556.30	105166.1
3	30984.68	32588.48	105176.0
4	31012.34	32620.66	105186.0
5	31039.99	32652.85	105196.0
6	31067.64	32685.04	105206.0
7	31095.29	32717.24	105216.0
8	31122.94	32749.44	105226.0
9	31150.58	32781.65	105236.1
10	31178.22	32813.87	105246.1
11	31205.86	32846.10	105256.1
12	31233.49	32878.33	105266.2
13	31261.12	32910.56	105276.3
14	31288.75	32942.80	105286.4
15	31316.38	32975.05	105296.5
16	31344.00	33007.31	105306.6
17	31371.63	33039.57	105316.7
18	31399.25	33071.84	105326.8
19	31426.86	33104.11	105336.9
20	31454.48	33136.39	105347.1
21	31482.09	33168.68	105357.3
22	31509.69	33200.97	105367.4
23	31537.30	33233.27	105377.6
24	31564.90	33265.57	105387.8
25	31592.50	33297.88	105398.0
26	31620.10	33330.20	105408.2
27	31647.70	33362.52	105418.4
28	31675.29	33394.85	105428.7
29	31702.88	33427.19	105438.9
30	31730.47	33459.53	105449.2

Sinus	Tangens	Secans
95105.65	307768.35	323606.80
95096.66	307464.00	323317.36
95087.66	307160.20	323028.46
95078.65	306856.93	322740.11
95069.63	306554.21	322452.30
95060.60	306252.03	322165.03
95051.57	305950.38	321878.30
95042.53	305649.28	321592.10
95033.48	305348.70	321306.44
95024.42	305048.66	321021.32
95015.36	304749.15	320736.73
95006.29	304450.18	320452.66
94997.21	304151.73	320169.13
94988.12	303853.81	319886.13
94979.02	303556.41	319603.65
94969.91	303259.54	319321.70
94960.80	302963.20	319040.28
94951.68	302667.37	318759.37
94942.55	302372.07	318478.99
94933.41	302077.28	318199.13
94924.26	301783.01	317919.78
94915.11	301489.26	317640.95
94905.95	301196.02	317362.64
94896.78	300903.30	317084.84
94887.60	300611.09	316807.56
94878.41	300319.39	316530.78
94869.22	300028.20	316254.52
94860.02	299737.51	315978.76
94850.81	299447.34	315703.51
94841.59	299157.66	315428.77
94832.36	298868.50	315154.53

	Sinus	Tangens	Secans
30	31730.47	33459.53	105449.23
31	31758.05	33491.88	105459.50
32	31785.63	33524.24	105469.78
33	31813.21	33556.60	105480.07
34	31840.79	33588.97	105490.37
35	31868.36	33621.34	105500.68
36	31895.93	33653.72	105511.01
37	31923.50	33686.11	105521.34
38	31951.06	33718.50	105531.6
39	31978.63	33750.90	105542.04
40	32006.19	33783.30	105552.41
41	32033.74	33815.71	105562.7
42	32061.30	33848.13	105573.1
43	32088.85	33880.56	105583.5
44	32116.40	33912.99	105593.9
45	32143.95	33945.43	105604.4
46	32171.49	33977.87	105614.8
47	32199.03	34010.32	105625.2
48	32226.57	34042.78	105635.7
49	32254.10	34075.24	105646.2
50	32281.64	34107.71	105656.6
51	32309.17	34140.19	105667.1
52	32336.70	34172.67	105677.6
53	32364.22	34205.16	105688.1
54	32391.74	34237.65	105698.7
55	32419.26	34270.15	105709.2
56	32446.78	34302.66	105719.7
57	32474.29	34335.18	105730.3
58	32501.80	34367.70	105740.3
59	32529.31	34400.23	105751.4
60	32556.82	34432.76	105762.0

	Sinus	Tangens	Secans
2	94832.36	298868.50	315154.53
9	94823.13	298579.83	314880.79
8	94813.89	298291.66	314607.56
7	94804.64	298004.00	314334.83
6	94795.38	297716.83	314062.59
5	94786.11	297430.16	313790.86
4	94776.84	297143.99	313519.62
3	94767.56	296858.31	313248.87
2	94758.27	296573.12	312978.62
1	94748.97	296288.42	312708.86
0	94739.66	296004.22	312439.59
9	94730.35	295720.50	312170.81
8	94721.03	295437.27	311902.52
7	94711.70	295154.53	311634.72
6	94702.36	294872.27	311367.40
5	94693.01	294590.50	311100.57
4	94683.66	294309.21	310834.22
3	94674.30	294028.40	310568.35
2	94664.93	293748.07	310302.96
1	94655.55	293468.22	310038.05
0	94646.16	293188.85	309773.63
9	94636.76	292909.95	309509.67
8	94627.36	292631.52	309246.20
7	94617.95	292353.58	308983.19
6	94608.53	292076.10	308720.66
5	94599.10	291799.09	308458.60
4	94589.67	291522.56	308197.02
3	94580.23	291246.49	307935.90
2	94570.78	290970.89	307675.25
1	94561.32	290695.76	307415.07
0	94551.85	290421.09	307155.35

19	Sinus	Tangens	Secans
0	32556.82	34432.76	105762.0
1	32584.32	34465.30	105772.6
2	32611.82	34497.85	105783.2
3	32639.31	34530.40	105793.9
4	32666.81	34562.96	105804.5
5	32694.30	34595.53	105815.1
6	32721.79	34628.10	105825.8
7	32749.28	34660.68	105836.4
8	32776.76	34693.27	105847.1
9	32804.24	34725.86	105857.8
10	32831.72	34758.46	105868.5
11	32859.19	34791.07	105879.2
12	32886.66	34823.68	105889.9
13	32914.13	34856.30	105900.7
14	32941.60	34888.93	105911.4
15	32969.06	34921.56	105922.2
16	32996.52	34954.20	105932.9
17	33023.98	34986.85	105943.7
18	33051.44	35019.50	105954.5
19	33078.89	35052.16	105965.3
20	33106.34	35084.83	105976.1
21	33133.79	35117.50	105986.9
22	33161.23	35150.18	105997.8
23	33188.67	35182.87	106008.6
24	33216.11	35215.56	106019.5
25	33243.55	35248.26	106030.3
26	33270.98	35280.97	106041.2
27	33298.41	35313.68	106052.1
28	33325.84	35346.40	106063.0
29	33353.27	35379.13	106073.9
30	33380.69	35411.86	106084.8

Sinus	Tangens	Secans
94551.85	290421.09	307155.35
94542.38	290146.88	306896.10
94532.90	289873.14	306637.31
94523.41	289599.86	306378.98
94513.91	289327.04	306121.11
94504.40	289054.67	305863.70
94494.89	288782.77	305606.75
94485.37	288511.32	305350.26
94475.84	288240.33	305094.23
94466.30	287969.79	304838.64
94456.75	287699.70	304583.52
94447.20	287430.07	304328.84
94437.64	287160.88	304074.62
94428.07	286892.15	303820.84
94418.49	286623.86	303567.52
94408.90	286356.02	303314.64
94399.31	286088.63	303062.21
94389.71	285821.68	302810.23
94380.10	285555.17	302558.68
94370.48	285289.11	302307.59
94360.85	285023.49	302056.93
94351.21	284758.31	301806.72
94341.57	284493.56	301556.94
94331.92	284229.26	301307.60
94322.26	283965.39	301058.70
94312.60	283701.96	300810.24
94302.93	283438.96	300562.21
94293.25	283176.39	300314.62
94283.56	282914.26	300067.46
94273.86	282652.56	299820.73
94264.15	282391.29	299574.43

19	Sinus	Tangens	Secans
30	33380.69	35411.86	106084.8
31	33408.10	35444.60	106095.8
32	33435.52	35477.35	106106.7
33	33462.93	35510.10	106117.7
34	33490.34	35542.86	106128.6
35	33517.75	35575.63	106139.6
36	33545.16	35608.40	106150.6
37	33572.56	35641.18	106161.6
38	33599.96	35673.97	106172.6
39	33627.35	35706.76	106183.6
40	33654.75	35739.56	106194.7
41	33682.14	35772.37	106205.7
42	33709.53	35805.18	106216.8
43	33736.91	35838.00	106227.8
44	33764.29	35870.83	106238.9
45	33791.67	35903.67	106250.0
46	33819.05	35936.51	106261.1
47	33846.42	35969.36	106272.2
48	33873.79	36002.22	106283.3
49	33901.16	36035.08	106294.5
50	33928.53	36067.95	106305.6
51	33955.89	36100.83	106316.8
52	33983.25	36133.71	106328.0
53	34010.60	36166.60	106339.1
54	34037.95	36199.50	106350.3
55	34065.30	36232.40	106361.5
56	34092.65	36265.31	106372.8
57	34120.00	36298.23	106384.0
58	34147.34	36331.15	106395.2
59	34174.68	36364.08	106406.5
60	34202.02	36397.02	106417.7

Sinus	Tangens	Secans
94264.15	282391.29	299574.43
94254.43	282130.45	299328.56
94244.71	281870.03	299083.12
94234.98	281610.04	298838.11
94225.24	281350.48	298593.52
94215.50	281091.34	298359.36
94205.75	280832.63	298105.63
94195.99	280574.33	297862.31
94186.22	280316.46	297619.42
94176.44	280059.01	297376.95
94166.65	279801.98	297134.90
94156.85	279545.37	296893.27
94147.05	279289.17	296652.05
94137.24	279033.39	296411.25
94127.42	278778.02	296170.87
94117.60	278523.07	295930.90
94107.77	278268.53	295691.35
94097.93	278014.40	295452.21
94088.08	277760.69	295213.48
94078.22	277507.38	294975.16
94068.35	277254.48	294737.25
94058.48	277001.99	294499.75
94048.60	276749.90	294262.65
94038.71	276498.22	294025.97
94028.81	276246.95	293789.68
94018.90	275996.08	293553.80
94008.99	275745.61	293318.33
93999.07	275495.54	293083.26
93989.14	275245.88	292848.58
93979.20	274996.61	292614.31
93969.26	274747.74	292380.44

20	Sinus	Tangens	Secans
0	34202.02	36397.02	106417
1	34229.35	36429.97	106429
2	34256.68	36462.92	106440
3	34284.01	36495.88	106451
4	34311.33	36528.85	106462.
5	34338.65	36561.82	106474.
6	34365.97	36594.80	106485.
7	34393.29	36627.79	106496.
8	34420.60	36660.79	10.6508.
9	34447.91	36693.79	106519.
10	34475.22	36726.80	106531.
11	34502.52	36759.82	106542.
12	34529.82	36792.84	106553.
13	34557.12	36825.87	106565.
14	34584.42	36858.91	106576.
15	34611.71	36891.95	106588.
16	34639.00	36925.00	106599.
17	34666.29	36958.06	106610.
18	34693.57	36991.13	106622.
19	34720.85	37024.20	106633.
20	34748.13	37057.28	106645.
21	34775.40	37090.37	106656.
22	34802.67	37123.46	106668.
23	34829.94	37156.56	106679.
24	34857.21	37189.67	106691.
25	34884.47	37222.78	106703.
26	34911.73	37255.90	106714.
27	34938.99	37289.03	106726.
28	34966.24	37322.17	106737.
29	34993.49	37355.32	106749.
30	35020.74	37388.47	106760.

Sinus	Tangens	Secans
93969.26	274747.74	292380.44
93959.31	274499.27	292146.97
93949.35	274251.20	291913.89
93939.38	274003.52	291681.21
93929.40	273756.23	291448.92
93919.42	273509.34	291217.03
93909.43	273262.84	290985.53
93899.43	273016.74	290754.43
93889.42	272771.02	290523.72
93879.40	272525.69	290293.39
93869.37	272280.75	290063.46
93859.34	272036.20	289833.91
93849.30	271792.04	289604.75
93839.25	271548.26	289375.98
93829.19	271304.87	289147.60
93819.13	271061.86	288919.59
93809.06	270819.23	288691.98
93798.98	270576.99	288464.74
93788.89	270335.13	288237.89
93778.79	270093.64	288011.42
93768.69	269852.54	287785.32
93758.58	269611.81	287559.61
93748.46	269371.47	287334.28
93738.33	269131.49	287109.32
93728.19	268891.90	286884.74
93718.05	268652.67	286660.53
93707.90	268413.83	286436.70
93697.74	268175.35	286213.24
93687.57	267937.25	285990.15
93677.40	267699.51	285767.44
93667.22	267462.15	285545.09

	Sinus	Tangens	Secans
30	35020.74	37388.47	106760.
31	35047.95	37421.63	106772.
32	35075.23	37454.79	106784.
33	35102.47	37487.97	106795.
34	35129.70	37521.15	106807.
35	35156.93	37554.34	106819.
36	35184.16	37587.53	106830.
37	35211.39	37620.73	106842.
38	35238.62	37653.94	106854.
39	35265.84	37687.16	106865.
40	35293.06	37720.38	106877.
41	35320.27	37753.61	106889.
42	35347.48	37786.85	106901.
43	35374.69	37820.10	106912.
44	35401.90	37853.35	106924.
45	35429.10	37886.61	106936.
46	35456.30	37919.88	106948.
47	35483.50	37953.16	106960.
48	35510.70	37986.44	106971.
49	35537.89	38019.73	106983.
50	35565.08	38053.03	106995.
51	35592.26	38086.33	107007.
52	35619.44	38119.64	107019.
53	35646.62	38152.96	107031.
54	35673.80	38186.29	107042.
55	35700.97	38219.62	107054.
56	35728.14	38252.96	107066.
57	35755.31	38286.31	107078.
58	35782.48	38319.67	107090.
59	35809.64	38353.03	107102.
60	35836.79	38386.40	107114.

Sinus	Tangens	Secans
93667.22	267462.15	285545.09
93657.03	267225.16	285323.12
93646.83	266988.53	285101.52
93636.62	266752.27	284880.28
93626.40	266516.38	284659.41
93616.18	266280.85	284438.91
93605.95	266045.69	284218.77
93595.71	265810.89	283998.99
93585.46	265576.45	283779.58
93575.21	265342.38	283560.54
93564.95	265108.67	283341.85
93554.68	264875.31	283123.53
93544.40	264642.32	282905.56
93534.11	264409.69	282687.96
93523.82	264177.41	282470.71
93513.52	263945.49	282253.82
93503.21	263713.92	282037.29
93492.89	263482.71	281821.11
93482.56	263251.86	281605.29
93472.23	263021.36	281389.82
93461.89	262791.21	281174.71
93451.54	262561.41	280959.95
93441.18	262331.96	280745.54
93430.82	262102.86	280531.48
93420.45	261874.11	280317.77
93410.07	261645.71	280104.41
93399.68	261417.66	279891.40
93389.28	261189.95	279678.73
93378.87	260962.59	279466.41
93368.46	260735.58	279254.44
93358.04	260508.91	279042.81

21	Sinus	Tangens	Secans
0	35836.79	38386.40	107114.5
1	35863.95	38419.78	107126.4
2	35891.10	38453.17	107138.4
3	35918.25	38486.56	107150.4
4	35945.40	38519.96	107162.4
5	35972.54	38553.37	107174.4
6	35999.68	38586.79	107186.4
7	36026.82	38620.21	107198.5
8	36053.95	38653.64	107210.5
9	36081.08	38687.08	107222.6
10	36108.21	38720.53	107234.6
11	36135.33	38753.98	107246.7
12	36162.46	38787.44	107258.8
13	36189.58	38820.91	107270.9
14	36216.69	38854.39	107283.1
15	36243.80	38887.87	107295.2
16	36270.91	38921.36	107307.3
17	36298.02	38954.86	107319.5
18	36325.12	38988.37	107331.7
19	36352.22	39021.89	107343.8
20	36379.32	39055.41	107563.0
21	36406.41	39088.94	107368.2
22	36433.50	39122.48	107380.4
23	36460.59	39156.02	107392.7
24	36487.68	39189.57	107404.9
25	36514.76	39223.13	107417.2
26	36541.84	39256.70	107429.4
27	36568.92	39290.28	107441.7
28	36595.99	39323.86	107454.0
29	36623.06	39357.45	107466.3
30	36650.13	39391.05	107478.6

	Sinus	Tangens	Secans
10	93358.04	260508.91	279042.81
9	93347.61	260282.58	278831.53
8	93337.17	260056.59	278620.59
7	93326.73	259830.95	278409.99
6	93316.28	259605.64	278199.73
5	93305.82	259380.68	277989.82
4	93295.35	259156.06	277780.24
3	93284.87	258931.77	277571.00
2	93274.39	258707.82	277362.11
1	93263.90	258484.21	277153.55
0	93253.40	258260.94	276945.32
9	93242.89	258038.00	276737.43
8	93232.38	257815.39	276529.88
7	93221.86	257593.12	276322.66
6	93211.33	257371.18	276115.78
5	93200.79	257149.57	275909.23
4	93190.24	256928.30	275703.01
3	93179.68	256707.35	275497.12
2	93169.12	256486.74	275291.57
1	93158.55	256266.45	275086.34
0	93147.97	256046.49	274881.44
9	93137.38	255826.86	274676.87
8	93126.79	255607.56	274472.63
7	93116.19	255388.58	274268.71
6	93105.58	255169.92	274065.12
5	93094.96	254951.60	273861.86
4	93084.33	254733.59	273658.92
3	93073.70	254515.91	273456.30
2	93063.06	254298.55	273254.00
1	93052.41	254081.51	273052.03
0	93041.75	253864.79	272850.38

21	Sinus	Tangens	Secans
30	36650.13	39391.05	107478.(
31	36677.19	39424.66	107490.9
32	36704.25	39458.27	107503.2
33	36731.31	39491.89	107515.(
34	36758.36	39525.52	107527.9
35	36785.41	39559.16	107540.3
36	36812.46	39592.80	107552.7
37	36839.50	39626.45	107565.1
38	36866.54	39660.11	107577.5
39	36893.58	39693.78	107589.9
40	36920.62	39727.46	107602.3
41	36947.65	39761.14	107614.8
42	36974.68	39794.83	107627.2
43	37001.70	39828.53	107639.7
44	37028.72	39862.24	107652.2
45	37055.74	39895.96	107664.7
46	37082.76	39929.68	107677.2
47	37109.77	39963.41	107689.7
48	37136.78	39997.15	107702.2
49	37163.79	40030.89	107714.7
50	37190.80	40064.65	107727.3
51	37217.80	40098.41	107739.8
52	37244.80	40132.18	107752.4
53	37271.79	40165.96	107765.0
54	37298.78	40199.75	107777.6
55	37325.77	40233.54	107790.2
56	37352.75	40267.34	107802.8
57	37379.73	40301.15	107815.5(
58	37406.71	40334.97	107828.1
59	37433.69	40368.79	107840.8(
60	37460.66	40402.62	107853.47

Sinus	Tangens	Secans
93041.75	253864.79	272850.38
93031.09	253648.39	272649.05
93020.42	253432.31	272448.04
93009.74	253216.55	272247.35
92999.05	253001.11	272046.98
92988.35	252785.98	271846.93
92977.65	252571.17	271647.19
92966.94	252356.67	271447.77
92956.22	252142.49	271248.66
92945.49	251928.63	271049.87
92934.75	251715.07	270851.39
92924.01	251501.83	270653.23
92913.26	251288.90	270455.38
92902.50	251076.29	270257.84
92891.73	250863.98	270060.61
92880.95	250651.98	269863.70
92870.17	250440.29	269667.09
92859.38	250228.91	269470.79
92848.58	250017.84	269274.80
92837.77	249807.07	269079.12
92826.96	249596.61	268883.74
92816.14	249386.45	268688.67
92805.31	249176.60	268493.91
92794.47	248967.06	268299.45
92783.62	248757.81	268105.30
92772.77	248548.87	267911.45
92761.91	248340.23	267717.90
92751.04	248131.90	267524.65
92740.16	247923.86	267331.70
92729.28	247716.12	267139.06
92718.39	247508.69	266946.72

22	Sinus	Tangens	Secan
0	37460.66	40402.62	107853.
1	37487.63	40436.46	107866.
2	37514.59	40470.31	107878.
3	37541.56	40504.17	107891.
4	37568.52	40538.04	107904.
5	37595.47	40571.91	107917.
6	37622.43	40605.79	107929.
7	37649.38	40639.68	107942.
8	37676.32	40673.58	107955.
9	37703.27	40707.48	107968.
10	37730.21	40741.39	107980.
11	37757.14	40775.31	107993.
12	37784.08	40809.24	108006.
13	37811.01	40843.18	108019.
14	37837.94	40877.13	108032.
15	37864.86	40911.08	108044.
16	37891.78	40945.04	108057.
17	37918.70	40979.01	108070.
18	37945.62	41012.99	108083.
19	37972.53	41046.97	108096.
20	37999.44	41080.97	108109.
21	38026.34	41114.97	108122.3
22	38053.24	41148.98	108135.2
23	38080.14	41183.00	108148.2
24	38107.04	41217.03	108161.1
25	38133.93	41251.06	108174.1
26	38160.82	41285.10	108187.1
27	38187.70	41319.15	108200.1
28	38214.59	41353.21	108213.1
29	38241.47	41387.28	108226.1
30	38268.34	41421.36	108239.2

Sinus	Tangens	Secans
92718.39	247508.69	266946.72
92707.49	247301.55	266754.67
92696.58	247094.70	266562.92
92685.66	246888.16	266371.48
92674.73	246681.91	266180.33
92663.80	246475.96	265989.47
92652.86	246270.30	265798.91
92641.91	246064.94	265608.65
92630.96	245859.87	265418.68
92620.00	245655.09	265229.01
92609.03	245450.61	265039.62
92598.05	245246.42	264850.54
92587.06	245042.52	264661.74
92576.06	244838.91	264473.23
92565.06	244635.59	264285.02
92554.05	244432.56	264097.09
92543.03	244229.82	263909.46
92532.00	244027.36	263722.11
92520.97	243825.19	363535.05
92509.93	243623.31	263348.28
92498.88	243421.72	263161.80
92487.82	243220.41	262975.60
92476.75	243019.38	262789.69
92465.68	242818.64	262604.06
92454.60	242618.19	262418.72
92443.51	242418.01	262233.66
92432.41	242218.12	262048.88
92421.31	242018.51	261864.39
92410.20	241819.18	261680.18
92399.08	241620.13	261496.24
92387.95	241421.36	261312.59

	Sinus	Tangens	Secan
30	38268.34	41421.36	10823
31	38295.22	41455.44	10825
32	38322.09	41489.53	10826
33	38348.95	41523.63	10827
34	38375.82	41557.74	10829
35	38402.68	41591.86	10830
36	38429.53	41625.99	10831
37	38456.39	41660.12	10833
38	38483.24	41694.26	10834
39	38510.08	41728.41	10835
40	38536.93	41762.57	10837
41	38563.77	41796.74	10838
42	38590.60	41830.91	10839
43	38617.44	41865.09	10840
44	38644.27	41899.28	10842
45	38671.10	41933.48	10843
46	38697.92	41967.69	10844
47	38724.74	42001.91	10846
48	38751.56	42036.13	10847
49	38778.37	42070.36	10848
50	38805.18	42104.60	10850
51	38831.99	42138.85	10851
52	38858.80	42173.11	10852
53	38885.60	42207.38	10854
54	38912.39	42241.66	10855
55	38939.19	42275.94	10856
56	38965.98	42310.23	10858
57	38992.77	42344.53	10859
58	39019.55	42378.84	10860
59	39046.33	42413.16	10862
60	39073.11	42447.49	10863

Sinus	Tangens	Secans
92387.95	241421.36	261312.59
92376.81	241222.86	261129.22
92365.67	241024.65	260946.13
92354.52	240826.72	260763.32
92343.36	240629.06	260580.78
92332.19	240431.68	260398.52
92321.02	240234.57	260216.54
92309.84	240037.74	260034.84
92298.65	239841.18	259853.41
92287.45	239644.90	259672.25
92276.24	239448.89	259491.37
92265.03	239253.16	259310.77
92253.81	239057.69	259130.43
92242.58	238862.50	258950.37
92231.34	238667.58	258770.58
92220.09	238472.93	258591.07
92208.84	238278.55	258411.82
92197.58	238084.44	258232.84
92186.31	237890.60	258054.14
92175.03	237697.03	257875.70
92163.75	237503.72	257697.53
92152.46	237310.68	257519.63
92141.16	237117.91	257341.99
92129.85	236925.40	257164.62
92118.54	236733.16	256987.52
92107.22	236541.18	256810.69
92095.89	236349.46	256634.12
92084.55	236158.01	256457.81
92073.20	235966.83	256281.76
92061.85	235775.90	256105.99
92050.49	235585.24	255930.47

23	Sinus	Tangens	Secans
0	39073.11	42447.49	108636.0
1	39099.89	42481.82	108649.4
2	39126.66	42516.16	108662.8
3	39153.43	42550.51	108676.3
4	39180.19	42584.87	108689.7
5	39206.95	42619.24	108703.2
6	39233.71	42653.62	108716.7
7	39260.47	42688.00	108730.2
8	39287.22	42722.39	108743.7
9	39313.97	42756.79	108757.2
10	39340.71	42791.20	108770.8
11	39367.45	42825.62	108784.3
12	39394.19	42860.05	108797.9
13	39420.93	42894.49	108811.4
14	39447.66	42928.94	108825.0
15	39474.39	42963.39	108838.6
16	39501.11	42997.85	108852.2
17	39527.83	43032.32	108865.8
18	39554.55	43066.80	108879.5
19	39581.27	43101.29	108893.1
20	39607.98	43135.79	108906.8
21	39634.69	43170.30	108920.5
22	39661.39	43204.81	108934.1
23	39688.09	43239.33	108947.8
24	39714.79	43273.86	108961.5
25	39741.48	43308.40	108975.3
26	39768.17	43342.95	108989.0
27	39794.86	43377.51	109002.7
28	39821.55	43412.08	109016.5
29	39848.23	43446.66	109030.3
30	39874.91	43481.24	109044.1

Sinus	Tangens	Secans
92050.49	235585.24	255930.47
92039.12	235394.83	255755.21
92027.74	235204.69	255580.22
92016.35	235014.81	255405.48
92004.96	234825.19	255231.01
91993.56	234635.82	255056.80
91982.15	234446.72	254882.84
91970.73	234257.87	254709.15
91959.31	234069.28	254535.71
91947.88	233880.95	254362.53
91936.44	233692.87	254189.61
91924.99	233505.05	254016.94
91913.53	233317.48	253844.53
91902.07	233130.17	253672.38
91890.60	232943.11	253500.48
91879.12	232756.30	253328.83
91867.63	232569.75	253157.44
91856.14	232383.45	252986.30
91844.64	232197.40	252815.41
91833.13	232011.60	252644.78
91821.61	231826.06	252474.40
91810.08	231640.76	252304.26
91798.55	231455.71	252134.38
91787.01	231270.91	251964.75
91775.46	231086.36	251795.37
91763.90	230902.06	251626.24
91752.34	230718.01	251457.35
91740.77	230534.20	251288.71
91729.19	230350.64	251120.32
91717.60	230167.32	250952.18
91706.01	229984.25	250784.28

23	Sinus	Tangens	Secan
30	39874.91	43481.24	109044.
31	39901.58	43515.83	109057.
32	39928.25	43550.43	109071.
33	39954.92	43585.04	109085.
34	39981.58	43619.66	109099.
35	40008.24	43654.29	109113.
36	40034.90	43688.93	109127.
37	40061.56	43723.58	109140.
38	40088.21	43758.23	109154.
39	40114.86	43792.89	109168.
40	40141.50	43827.56	109182.
41	40168.14	43862.24	109196.
42	40194.78	43896.93	109210.
43	40221.41	43931.63	109224.
44	40248.04	43966.34	109238.
45	40274.67	44001.06	109252.
46	40301.29	44035.78	109266.
47	40327.91	44070.51	109280.
48	40354.53	44105.25	109294.
49	40381.14	44140.00	109308.
50	40407.75	44174.76	109322.
51	40434.36	44209.53	109336.
52	40460.96	44244.31	109350
53	40487.56	44279.10	109364.
54	40514.16	44313.90	109378
55	40540.75	44348.71	109392
56	40567.34	44383.53	109407
57	40593.93	44418.35	109421
58	40620.51	44453.18	109435
59	40647.09	44488.02	109449
60	40673.66	44522.87	109463

Sinus	Tangens	Secans
91706.01	229984.25	250784.28
91694.41	229801.43	250616.63
91682.80	229618.85	250449.23
91671.18	229436.51	250282.07
91659.55	229254.42	250115.15
91647.91	229072.57	249948.47
91636.27	228890.96	249782.04
91624.62	228709.59	249615.86
91612.96	228528.46	249449.91
91601.30	228347.58	249284.21
91589.63	228166.93	249118.74
91577.95	227986.53	248953.52
91566.26	227806.36	248788.54
91554.56	227626.43	248623.80
91542.86	227446.74	248459.29
91531.15	227267.29	248295.03
91519.43	227088.07	248131.00
91507.70	226909.09	247967.21
91495.96	226730.35	247803.66
91484.22	226551.84	247640.34
91472.47	226373.57	247477.26
91460.71	226195.53	247314.42
91448.95	226017.73	247151.81
91437.18	225840.16	246989.43
91425.40	225662.83	246827.29
91413.61	225485.72	246665.38
91401.81	225308.85	246503.71
91390.00	225132.21	246342.27
91378.19	224955.80	246181.06
91366.37	224779.62	246020.08
91354.54	224603.68	245859.33

	Sinus	Tangens	Secans
0	40673.66	44522.87	109463.6
1	40700.23	44557.73	109477.8
2	40726.80	44592.60	109492.0
3	40753.37	44627.48	109506.2
4	40779.93	44662.37	109520.4
5	40806.49	44697.27	109534.6
6	40833.05	44732.17	109548.9
7	40859.60	44767.08	109563.1
8	40886.15	44802.00	109577.4
9	40912.69	44836.93	109591.7
10	40939.23	44871.87	109606.0
11	40965.77	44906.82	109620.3
12	40992.30	44941.78	109634.6
13	41018.83	44976.75	109649.0
14	41045.36	45011.73	109663.3
15	41071.89	45046.72	109677.6
16	41098.41	45081.72	109692.0
17	41124.93	45116.73	109706.3
18	41151.44	45151.74	109720.6
19	41177.95	45186.76	109735.0
20	41204.46	45221.79	109749.3
21	41230.96	45256.83	109764.6
22	41257.46	45291.88	109778.0
23	41283.95	45326.94	109793.3
24	41310.44	45362.01	109807.6
25	41336.93	45397.09	109822.0
26	41363.42	45432.18	109836.3
27	41389.90	45467.28	109851.6
28	41416.38	45502.39	109865.9
29	41442.85	45537.51	109880.3
30	41469.32	45572.64	109894.6

Sinus	Tangens	Secans
91354.54	224603.68	245859.33
91342.71	224427.96	245698.82
91330.87	224252.47	245538.53
91319.02	224077.21	245378.48
91307.16	223902.18	245218.65
91295.29	223727.38	245059.05
91283.42	223552.80	244899.68
91271.54	223378.45	244740.54
91259.65	223204.33	244581.63
91247.75	223030.43	244422.94
91235.84	222856.76	244264.48
91223.93	222683.31	244106.24
91212.01	222510.09	243948.23
91200.08	222337.09	243790.45
91188.14	222164.32	243632.89
91176.20	221991.77	243475.55
91164 25	221819.44	243318.44
91152.29	221647.33	243161.55
91140.32	221475.45	243004.89
91128.35	221303.79	242848.44
91116.37	221132.34	242692.22
91104.38	220961.12	242536.22
91092.38	220790.12	242380.44
91080.38	220619.34	242224.88
91068.37	220448.78	242069.54
91056.35	220278.43	241914.42
91044.32	220108.31	241759.52
91032.28	219938.40	241604.84
91020.24	219768.71	241450.38
91008.19	219599.23	241296.13
90996.13	219429.97	241142.1

	Sinus	Tangens	Secans
30	41469.32	45572.64	109894.
31	41495.79	45607.77	109909.
32	41522.26	45642.91	109923.
33	41548.72	45678.06	109938.
34	41575.18	45713.22	109953.
35	41601.63	45748.39	109967.
36	41628.08	45783.57	109982.
37	41654.53	45818.76	109997.
38	41680.97	45853.96	110011.
39	41707.41	45889.17	110026.
40	41733.85	45924.39	110041.
41	41760.28	45959.62	110055.
42	41786.71	45994.86	110070.
43	41813.13	46030.11	110085.
44	41839.55	46065.37	110100.
45	41865.97	46100.64	110114.
46	41892.39	46135.91	110129.
47	41918.80	46171.19	110144
48	41945.21	46206.48	110159
49	41971.61	46241.78	110173
50	41998.01	46277.09	110188
51	42024.41	46312.42	110203
52	42050.80	46347.76	110218
53	42077.19	46383.11	110233
54	42103.58	46418.46	110248
55	42129.96	46453.82	110263
56	42156.34	46489.19	110278
57	42182.72	46524.57	110292
58	42209.09	46559.96	110307
59	42235.46	46595.36	110322
60	42261.83	46630.77	110337

Sinus	Tangens	Secans
90996.13	219429.97	241142.10
90984.06	219260.93	240988.29
90971.98	219092.10	240834.69
90959.90	218923.49	240681.32
90947.81	218755.10	240528.15
90935.71	218586.91	240375.20
90923.61	218418.94	240222.47
90911.50	218251.19	240069.95
90899.38	218083.64	239917.64
90887.25	217916.31	239765.55
90875.11	217749.20	239613.67
90862.97	217582.29	239462.01
90850.82	217415.59	239310.55
90838.66	217249.11	239159.31
90826.49	217082.83	239008.28
90814.32	216916.77	238857.46
90802.14	216750.91	238706.85
90789.95	216585.27	238556.45
90777.75	216419.83	238406.25
90765.54	216254.60	238256.27
90753.33	216089.58	238106.50
90741.11	215924.76	237956.93
90728.88	215760.15	237807.58
90716.64	215595.75	237658.43
90704.40	215431.56	237509.49
90692.15	215267.57	237360.75
90679.89	215103.78	237212.22
90667.62	214940.20	237063.90
90655.35	214776.83	236915.78
90643.07	214613.66	236767.87
90630.78	214450.69	236620.16

25	Sinus	Tangens	Secans
0	42261.83	46630.77	110337.7
1	42288.19	46666.19	110352.7
2	42314.55	46701.62	110367.7
3	42340.90	46737.06	110382.7
4	42367.25	46772.51	110397.7
5	42393.60	46807.97	110412.7
6	42419.94	46843.43	110427.8
7	42446.28	46878.90	110442.8
8	42472.62	46914.38	110457.9
9	42498.95	46949.88	110473.0
10	42525.28	46985.39	110488.1
11	42551.61	47020.90	110503.2
12	42577.93	47056.43	110518.3
13	42604.25	47091.96	110533.4
14	42630.56	47127.51	110548.6
15	42656.87	47163.06	110563.8
16	42683.18	47198.63	110578.9
17	42709.49	47234.20	110594.1
18	42735.79	47269.78	110609.3
19	42762.09	47305.38	110624.5
20	42788.38	47340.98	110639.8
21	42814.67	47376.59	110655.0
22	42840.95	47412.22	110670.3
23	42867.23	47447.85	110685.5
24	42893.51	47483.49	110700.8
25	42919.79	47519.14	110716.1
26	42946.06	47554.81	110731.4
27	42972.33	47590.48	110746.8
28	42998.59	47626.16	110762.1
29	43024.85	47661.85	110777.4
30	43051.11	47697.55	110792.8

Sinus	Tangens	Secans
90630.78	214450.69	236620.16
90618.48	214287.93	236472.65
90606.17	214125.37	236325.35
90593.86	213963.01	236178.26
90581.54	213800.85	236031.36
90569.21	213638.89	235884.67
90556.88	213477.14	235738.18
90544.54	213315.59	235591.89
90532.19	213154.23	235445.81
90519.83	212993.08	235299.92
90507.46	212832.13	235154.24
90495.09	212671.37	235008.75
90482.71	212510.82	234863.47
90470.32	212350.46	234718.38
90457.92	212190.30	234573.49
90445.51	212030.34	234428.80
90433.10	211870.57	234284.31
90420.68	211711.01	234140.02
90408.25	211551.64	233995.93
90395.82	211392.46	233852.03
90383.38	211233.48	233708.33
90370.93	211074.70	233564.82
90358.47	210916.11	233421.52
90346.00	210757.71	233278.40
90333.53	210599.51	233135.48
90321.05	210441.50	232992.76
90308.56	210283.69	232850.23
90296.06	210126.07	232707.90
90283.56	209968.64	232565.75
90271.05	209811.40	232423.81
90258.53	209654.36	232282.05

25	Sinus	Tangens	Secans
30	43051.11	47697.55	110792.8
31	43077.36	47733.26	110808.2
32	43103.61	47768.99	110823.6
33	43129.86	47804.72	110839.0
34	43156.10	47840.46	110854.4
35	43182.34	47876.21	110869.8
36	43208.57	47911.97	110885.3
37	43234.80	47947.74	110900.7
38	43261.03	47983.52	110916.2
39	43287.26	48019.32	110931.7
40	43313.48	48055.12	110947.2
41	43339.70	48090.93	110962.7
42	43365.91	48126.75	110978.3
43	43392.12	48162.58	110993.8
44	43418.33	48198.42	111009.4
45	43444.53	48234.27	111024.9
46	43470.73	48270.14	111040.5
47	43496.92	48306.01	111056.1
48	43523.11	48341.89	111071.7
49	43549.30	48377.78	111087.4
50	43575.48	48413.68	111103.0
51	43601.66	48449.59	111118.6
52	43627.84	48485.52	111134.3
53	43654.01	48521.45	111150.0
54	43680.18	48557.39	111165.7
55	43706.34	48593.34	111181.4
56	43732.50	48629.31	111197.1
57	43758.66	48665.28	111212.9
58	43784.82	48701.26	111228.6
59	43810.97	48737.26	111244.4
60	43837.12	48773.26	111260.1

Sinus	Tangens	Secans
90258.53	209654.36	232282.05
90246.00	209497.51	232140.49
90233.47	209340.84	231999.11
90220.93	209184.37	231857.94
90208.38	205028.09	231716.95
90195.82	208872.00	231576.15
90183.25	208716.10	231435.54
90170.68	208560.39	231295.13
90158.10	208404.86	231154.90
90145.51	208249.53	231014.86
90132.91	208094.38	230875.01
90120.31	207939.42	230735.35
90107.70	207784.65	230595.88
90095.08	207630.07	230456.60
90082.45	207475.67	230317.51
90069.82	207321.46	230178.60
90057.18	207167.43	230039.88
90044.53	207013.59	229901.34
90031.87	206859.93	229762.99
90019.21	206706.46	229624.83
90006.54	206553.18	229486.85
89993.86	206400.08	229349.06
89981.17	206247.16	229211.45
89968.48	206094.42	229074.03
89955.78	205941.87	228936.79
89943.07	205789.50	228799.74
89930.35	205637.32	228662.86
89917.62	205485.31	228526.18
89904.89	205333.49	228389.67
89892.15	205181.84	228253.34
89879.40	205030.38	228117.20

26	Sinus	Tangens	Secans
0	43837.12	48773.26	111260.1
1	43863.26	48809.27	111275.9
2	43889.40	48845.30	111291.7
3	43915.53	48881.33	111307.6
4	43941.66	48917.37	111323.4
5	43967.79	48953.43	111339.3
6	43993.92	48989.49	111355.1
7	44020.04	49025.57	111371.0
8	44046.16	49061.66	111386.9
9	44072.27	49097.75	111402.8
10	44098.38	49133.86	111418.7
11	44124.48	49169.97	111434.6
12	44150.58	49206.10	111450.6
13	44176.68	49242.24	111466.5
14	44202.78	49278.38	111482.5
15	44228.87	49314.54	111498.5
16	44254.96	49350.71	111514.5
17	44281.04	49386.89	111530.5
18	44307.12	49423.08	111546.5
19	44333.20	49459.28	111562.6
20	44359.27	49495.49	111578.6
21	44385.34	49531.71	111594.7
22	44411.40	49567.94	111610.8
23	44437.46	49604.18	111626.9
24	44463.52	49640.43	111643.0
25	44489.57	49676.69	111659.1
26	44515.62	49712.97	111675.3
27	44541.67	49749.25	111691.4
28	44567.71	49785.54	111707.6
29	44593.75	49821.85	111723.8
30	44619.78	49858.16	111740.0

Sinus	Tangens	Secans
89879.40	205030.38	228117.20
89866.65	204875.10	227981.24
89853.89	204728.00	227845.46
89841.12	204577.09	227709.86
89828.34	204426.34	227574.45
89815.55	204275.78	227439.21
89802.76	204125.40	227304.15
89789.96	203975.19	227169.27
89777.15	203825.17	227034.57
89764.33	203675.32	226900.05
89751.51	203525.65	226765.71
89738.68	203376.15	226631.55
89725.84	203226.83	226497.56
89712.99	203077.69	226363.75
89700.13	202928.73	226230.12
89687.27	202779.94	226096.67
89674.40	202631.33	225963.39
89661.52	202482.89	225830.29
89648.64	202334.62	225697.36
89635.75	202186.53	225564.61
89622.85	202038.62	225432.04
89609.94	201890.88	225299.64
89597.03	201743.31	225167.41
89584.11	201595.92	225035.36
89571.18	201448.69	224903.48
89558.24	201301.64	224771.78
89545.29	201154.77	224640.24
89532.34	201008.06	224508.89
89519.38	200861.53	224377.70
89506.41	200715.16	224246.69
89493.43	200568.97	224115.84

	Sinus	Tangens	Secans
30	44619.78	49858.16	111740.04
31	44645.81	49894.49	111756.25
32	44671.84	49930.82	111772.48
33	44697.86	49967.17	111788.72
34	44723.88	50003.52	111804.98
35	44749.90	50039.89	111821.25
36	44775.91	50076.27	111837.53
37	44801.92	50112.66	111853.83
38	44827.92	50149.06	111870.14
39	44853.92	50185.47	111886.47
40	44879.92	50221.89	111902.81
41	44905.91	50258.32	111919.16
42	44931.90	50294.76	111935.53
43	44957.89	50331.21	111951.91
44	44983.87	50367.67	111968.31
45	45009.85	50404.15	111984.72
46	45035.82	50440.63	112001.15
47	45061.79	50477.13	112017.59
48	45087.76	50513.63	112034.05
49	45113.72	50550.15	112050.52
50	45139.68	50586.68	112067.00
51	45165.63	50623.22	112083.50
52	45191.58	50659.77	112100.01
53	45217.53	50696.33	112116.53
54	45243.47	50732.90	112133.07
55	45269.41	50769.48	112149.63
56	45295.35	50806.07	112166.20
57	45321.28	50842.67	112182.78
58	45347.21	50879.28	112199.38
59	45373.13	50915.91	112216.00
60	45399.05	50952.54	112232.62

	Sinus	Tangens	Secans
	89493.43	200568.97	224115.84
	89480.45	200422.95	223985.17
	89467.46	200277.10	223854.67
	89454.46	200131.42	223724.35
	89441.45	199985.90	223594.19
	89428.44	199840.56	223464.20
	89415.42	199695.39	223334.38
	89402.39	199550.38	223204.74
	89389.36	199405.54	223075.26
	89376.32	199260.87	222945.95
	89363.27	199116.37	222816.81
	89350.21	198972.04	222687.83
	89337.14	198827.87	222559.03
	89324.06	198683.87	222430.39
	89310.98	198540.03	222301.92
	89297.89	198396.36	222173.62
	89284.79	198252.86	222045.48
	89271.69	198109.52	221917.51
	89258.58	197966.35	221789.71
	89245.46	197823.34	221662.07
	89232.33	197680.50	221534.60
	89219.20	197537.82	221407.30
	89206.06	197395.31	221280.16
	89192.91	197252.96	221153.18
	89179.75	197110.77	221026.37
	89166.59	196968.74	220899.72
	89153.42	196826.88	220773.23
	89140.24	196685.18	220646.91
	89127.05	196543.64	220520.75
	89113.85	196402.27	220394.76
0	89100.65	196261.05	220268.93

27	Sinus	Tangens	Secans
0	45399.05	50952.54	112232.6
1	45424.97	50989.19	112249.2
2	45450.88	51025.85	112265.9
3	45476.79	51062.52	112282.5
4	45502.69	51099.19	112299.2
5	45528.59	51135.88	112315.9
6	45554.49	51172.59	112332.6
7	45580.38	51209.30	112349.4
8	45606.27	51246.02	112366.1
9	45632.16	51282.75	112382.9
10	45658.04	51319.50	112399.6
11	45683.92	51356.25	112416.4
12	45709.79	51393.02	112433.2
13	45735.66	51429.80	112450.1
14	45761.53	51466.58	112466.9
15	45787.39	51503.38	112483.7
16	45813.25	51540.19	112500.6
17	45839.10	51577.02	112517.5
18	45864.95	51613.85	112534.3
19	45890.80	51650.69	112551.2
20	45916 64	51687.55	112568.2
21	45942.48	51724.41	112585.1
22	45968.32	51761.29	112602.0
23	45994.15	51798.18	112619.0
24	46019.98	51835.08	112636.0
25	46045.80	51871.99	112653.0
26	46071.62	51908.91	112670.0
27	46097.44	51945.84	112687.0
28	46123.25	51982.78	112704.0
29	46149.06	52019.74	112721.1
30	46174.86	52056.70	112738.1

Sinus	Tangens	Secans
89100.65	196261.05	220268.93
89087.44	196120.00	220143.26
89074.22	195979.10	220017.75
89061.00	195838.37	219892.40
89047.77	195697.80	219767.21
89034.53	195557.39	219642.19
89021.28	195417.13	219517.33
89008.02	195277.04	219392.62
88994.76	195137.11	219268.08
88981.49	194997.33	219143.70
88968.21	194857.71	219019.47
88954.93	194718.26	218895.41
88941.64	194578.96	218771.50
88928.34	194439.81	218647.75
88915.03	194300.83	218524.17
88901.71	194162.00	218400.74
88888.39	194023.33	218277.46
88875.06	193884.81	218154.35
88861.72	193746.45	218031.39
88848.37	193608.25	217908.59
88835.02	193470.20	217785.94
88821.66	193332.31	217663.46
88808.29	193194.57	217541.12
88794.92	193056.98	217418.95
88781.54	192919.56	217296.93
88768.15	192782.28	217175.06
88754.75	192645.16	217053.35
88741.34	192508.19	216931.80
88727.93	192371.38	216810.40
88714.51	192234.72	216689.15
88701.08	192098.21	216568.06

	Sinus	Tangens	Secans
30	46174.86	52056.70	112738.1
31	46200.66	52093.68	112755.2
32	46226.46	52130.67	112772.3
33	46252.25	52167.67	112789.4
34	46278.04	52204.68	112806.6
35	46303.82	52241.70	112823.7
36	46329.60	52278.74	112840.8
37	46355.38	52315.78	112858.0
38	46381.15	52352.84	112875.2
39	46406.92	52389.90	112892.4
40	46432.69	52426.98	112909.(
41	46458.45	52464.07	112926.!
42	46484.21	52501.17	112944.
43	46509.96	52538.29	112961.
44	46535.71	52575.41	112978.(
45	46561.45	52612.54	112995.
46	46587.19	52649.69	113013.
47	46612.93	52686.85	113030.
48	46638.66	52724.02	113047.
49	46664.39	52761.20	113065.
50	46690.12	52798.39	113082.
51	46715.84	52835.59	113099.
52	46741.56	52872.81	113117.
53	46767.27	52910.04	113134.
54	46792.98	52947.27	113152.
55	46818.69	52984.52	113169.
56	46844.39	53021.78	113187.
57	46870.09	53059.06	113204.
58	46895.78	53096.34	113222.
59	46921.47	53133.64	113239.
60	46947.16	53170.94	113257.

Sinus	Tangens	Secans
88701.08	192098.21	216568.06
88687.64	191961.86	216447.12
88674.20	191825.65	216326.33
88660.75	191689.60	216205.70
88647.29	191553.70	216085.22
88633.83	191417.95	215964.89
88620.36	191282.36	215844.71
88606.88	191146.91	215724.69
88593.39	191011.62	215604.82
88579.89	190876.47	215485.10
88566.39	190741.47	215365.53
88552.88	190606.63	215246.11
88539.36	190471.93	215126.84
88525.83	190337.38	215007.72
88512.30	190202.99	214888.75
88498.76	190068.74	214769.93
88485.21	189934.64	214651.27
88471.66	189800.68	214532.75
88458.10	189666.88	214414.37
88444.53	189533.22	214296.15
88430.95	189399.71	214178.08
88417.36	189266.34	214060.15
88403.77	189133.13	213942.38
88390.17	189000.06	213824.75
88376.56	188867.13	213707.26
88362.94	188734.36	213589.93
88349.32	188601.72	213472.74
88335.69	188469.24	213355.70
88322.05	188336.90	213238.80
88308.41	188204.70	213122.05
88294.76	188072.65	213005.45

28	Sinus	Tangens	Secans
0	46947.16	53170.94	113257.
1	46972.84	53208.26	113274.
2	46998.52	53245.59	113292.
3	47024.19	53282.93	113309.
4	47049.86	53320.29	113327.
5	47075.53	53357.65	113344.
6	47101.19	53395.03	113362.
7	47126.85	53432.42	113379.
8	47152.50	53469.82	113397.
9	47178.15	53507.23	113415.
10	47203.80	53544.65	113432.
11	47229.44	53582.08	113450.
12	47255.08	53619.53	113468.
13	47280.71	53656.99	113486.
14	47306.34	53694.46	113503.
15	47331.97	53731.94	113521.
16	47357.59	53769.43	113539.
17	47383.21	53806.94	113556.
18	47408.82	53844.45	113574.
19	47434.43	53881.98	113592.
20	47460.04	53919.52	113610.
21	47485.64	53957.07	113628.
22	47511.24	53994.64	113646.
23	47536.83	54032.21	113663.
24	47562.42	54069.80	113681.
25	47588.01	54107.40	113699.
26	47613.59	54145.01	113717.
27	47639.17	54182.63	113735.
28	47664.74	54220.27	113753.
29	47690.31	54257.91	113771.
30	47715.88	54295.57	113789.

	Sinus	Tangens	Secans
0	88294.76	188072.65	213005.45
9	88281.10	187940.74	212888.99
8	88267.43	187808.98	212772.67
7	88253.75	187677.36	212656.51
6	88240.07	187545.88	212540.48
5	88226.38	187414.55	212424.60
4	88212.68	187283.36	212308.87
3	88198.98	187152.31	212193.28
2	88185.27	187021.41	212077.83
1	88171.55	186890.64	211962.53
0	88157.82	186760.03	211847.37
59	88144.09	186629.55	211732.35
58	88130.35	186499.21	211617.48
57	88116.60	186369.02	211502.74
56	88102.84	186238.96	211388.15
55	88089.07	186109.05	211273.71
54	88075.30	185979.28	211159.40
53	88061.52	185849.65	211045.23
52	88047.73	185720.15	210931.21
51	88033.94	185590 80	210817.33
50	88020.14	185461.59	210703.59
49	88006.33	185332.52	210589.98
48	87992.51	185203.58	210476.52
47	87978.69	185074.79	210363.20
46	87964.86	184946.13	210250.02
45	87951.02	184817.61	210136.98
44	87937.17	184689.23	210024.08
43	87923.32	184560.99	209911.31
42	87909.46	184432.89	209798.69
41	87895.59	184304.92	209686.20
40	87881.71	184177.09	209573.85

	Sinus	Tangens	Secans
30	47715.88	54295.57	113789.
31	47741.44	54333.24	113807.
32	47797.00	54370.92	113825.
33	47792.55	54408.62	113843.
34	47818.10	54446.32	113861.
35	47843.64	54484.04	113879.
36	47869.18	54521.77	113897.
37	47894.72	54559.51	113915.
38	47920.26	54597.26	113933.
39	47945.79	54635.03	113951.
40	47971.31	54672.81	113969.
41	47996.83	54710.60	113987.
42	48022.35	54748.40	114006.
43	48047.86	54786.21	114024.
44	48073.37	54824.04	114042.
45	48098.88	54861.88	114060.
46	48124.38	54899.73	114078.
47	48149.88	54937.59	114097.
48	48175.37	54975.46	114115.
49	48200.86	55013.35	114133.
50	48226.34	55051.25	114151.
51	48251.82	55089.16	114170.
52	48277.30	55127.08	114188.
53	48302.77	55165.02	114206.
54	48328.24	55202.97	114225.
55	48353.70	55240.93	114243.
56	48379.16	55278.90	114261.
57	48404.62	55316.88	114280.
58	48430.07	55354.88	114298.
59	48455.52	55392.88	114316.
60	48480.96	55430.90	114335.

Sinus	Tangens	Secans
87881.71	184177.09	209573.85
87867.83	184049.39	209461.64
87853.94	183921.84	209349.57
87840.04	183794.42	209237.64
87826.13	183667.13	209125.84
87812.22	183539.99	209014.18
87798.30	183412.97	208902.65
87784.37	183286.10	208791.27
87770.43	183159.36	208680.02
87756.49	183032.75	208568.90
87742.54	182906.28	208457.92
87728.58	182779.94	208347.08
87714.61	182653.74	208236.37
87700.64	182527.67	208125.80
87686.66	182401.73	208015.36
87672.67	182275.93	207905.06
87658.68	182150.26	207794.89
87644.68	182024.73	207684.86
87630.67	181899.32	207574.96
87616.65	181774.05	207465.19
87602.62	181648.92	207355.56
87588.59	181523.91	207246.06
87574.55	181399.04	207136.70
87560.50	181274.30	207027.46
87546.45	181149.69	206918.36
87532.39	181025.21	206809.40
87518.32	180900.86	206700.56
87504.24	180776.64	206591.86
87490.16	180652.56	206483.28
87476.07	180528.60	206374.84
87461.97	180404.78	206266.53

29	Sinus	Tangens	Secans
0	48480.96	55430.90	114335.
1	48506.40	55468.94	114353.
2	48531.84	55506.08	114372.
3	48557.27	55545.04	114390.
4	48582.70	55583.11	114409.
5	48608.12	55621.19	114427.
6	48633.54	55659.29	114446.
7	48658.95	55697.39	114464.
8	48684.36	55735.51	114483.
9	48709.77	55773.64	114501.
10	48735.17	55811.79	114520.
11	48760.57	55849.94	114539.
12	48785.97	55888.11	114557.
13	48811.36	55926.29	114576.
14	48836.74	55964.48	114595.
15	48862.12	56002.69	114613.
16	48887.50	56040.91	114632.
17	48912.87	56079.14	114651.
18	48938.24	56117.38	114669.
19	48963.61	56155.64	114688.
20	48988.97	56193.91	114707.
21	49014.33	56232.19	114726.
22	49039.68	56270.48	114744.
23	49065.03	56308.79	114763.
24	49090.37	56347.10	114782.
25	49115.71	56385.43	114801.
26	49141.05	56423.78	114820.
27	49166.38	56462.13	114838.
28	49191.71	56500.50	114857.
29	49217.04	56538.88	114876.
30	49242.36	56577.28	114895.

Sinus	Tangens	Secans
87461.97	180404.78	206266.53
87447.86	180281.08	206158.36
87433.75	180157.51	206050.31
87419.63	180034.08	205942.39
87405.50	179910.77	205834.60
87391.36	179787.59	205726.95
87377.22	179664.54	205619.42
87363.07	179541.62	205512.03
87348.91	179418.83	205404.76
87334.75	179296.16	205297.62
87320.58	179173.62	205190.61
87306.40	179051.21	205083.73
87292.21	178928.93	204976.98
87278.01	178806.78	204870.36
87263.81	178684.75	204763.86
87249.60	178562.85	204657.50
87235.38	178441.07	204551.26
87221.16	178319.43	204445.15
87206.93	178197.90	204339.16
87192.69	178076.51	204233.30
87178.44	177955.24	204127.57
87164.19	177834.09	204021.97
87149.93	177713.07	203916.49
87135.66	177592.18	203811.14
87121.38	177471.41	203705.92
87107.10	177350.76	203600.82
87092.81	177230.24	203495.85
87078.51	177109.85	203391.00
87064.20	176989.58	203286.27
87049.89	176869.43	203181.68
87035.57	176749.40	203077.20

29	Sinus	Tangens	Secan.
30	49242.36	56577.28	114895.
31	49267.67	56615.68	114914.
32	49292.98	56654.10	114933.
33	49318.29	56692.53	114952.
34	49343.59	56730.98	114971.
35	49368.89	56769.44	114990.
36	49394.19	56807.91	115009.
37	49419.48	56846.39	115028.
38	49444.77	56884.88	115047.
39	49470.05	56923.39	115066.
40	49495.33	56961.91	115085.
41	49520.60	57000.45	115104.
42	49545.87	57038.99	115123.
43	49571.13	57077.55	115142.
44	49596.39	57116.12	115161.
45	49621.65	57154.71	115180.
46	49646.90	57193.31	115200.
47	49672.15	57231.92	115219.
48	49697.40	57270.54	115238.
49	49722.64	57309.18	115257.
50	49747.87	57347.83	115276.
51	49773.10	57386.49	115296
52	49798.33	57425.16	115315
53	49823.55	57463.85	115334
54	49848.77	57502.55	115353
55	49873.99	57541.26	115373
56	49899.20	57579.99	115392
57	49924.41	57618.73	115411
58	49949.61	57657.48	115431
59	49974.81	57696.25	115450
60	50000.00	57735.03	115470

Sinus	Tangens	Secans
87035.57	176749.40	203077.20
87021.24	176629.50	202972.86
87006.90	176509.72	202868.63
86992.56	176390.07	202764.53
86978.21	176270.53	202660.56
86963.85	176151.12	202556.70
86949.49	176031.83	202452.97
86935.12	175912.67	202349.37
86920.74	175793.62	202245.89
86906.35	175674.70	202142.53
86891.96	175555.90	202039.29
86877.56	175437.22	201936.17
86863.15	175318.66	201833.18
86848.73	175200.23	201730.31
86834.31	175081.91	201627.56
86819.88	174963.71	201524.94
86805.44	174845.64	201422.43
86791.00	174727.68	201320.05
86776.55	174609.84	201217.79
86762.09	174492.13	201115.64
86747.62	174374.53	201013.62
86733.14	174257.05	200911.72
86718.66	174139.69	200809.94
86704.17	174022.45	200708.28
86689.67	173905.33	200606.74
86675.17	173788.33	200505.32
86660.66	173671.44	200404.02
86646.14	173554.68	200302.83
86631.61	173438.03	200201.77
86617.08	173321.49	200100.83
86602.54	173205.08	200000.00

30	Sinus	Tangens	Secans
0	50000.00	57735.03	115470.0
1	50025.19	57773.82	115489.4
2	50050.38	57812.62	115508.8
3	50075.56	57851.44	115528.3
4	50100.74	57890.27	115547.7
5	50125.91	57929.11	115567.2
6	50151.08	57967.97	115586.7
7	50176.24	58006.84	115606.2
8	50201.40	58045.73	115625.7
9	50226.55	58084.62	115645.
10	50251.70	58123.53	115664.
11	50276.85	58162.45	115684.
12	50301.99	58201.39	115703.
13	50327.13	58240.34	115723.
14	50352.27	58279.30	115743.
15	50377.40	58318.28	115762.
16	50402.53	58357.27	115782.
17	50427.65	58396.27	115802.
18	50452.77	58435.28	115821.
19	50477.88	58474.31	115841.
20	50502.99	58513.35	115861
21	50528.09	58552.41	115880
22	50553.19	58591.48	115900
23	50578.28	58630.56	115920
24	50603.37	58669.65	115940
25	50628.46	58708.76	115959
26	50653.55	58747.88	115979
27	50678.63	58787.02	115999
28	50703.70	58826.17	116019
29	50728.77	58865.33	116039
30	50753.84	58904.50	116059

Sinus	Tangens	Secans
86602.54	173205.08	200000.00
86587.99	173088.78	199899.29
86573.43	172972.60	199798.70
86558.87	172856.54	199698.23
86544.30	172740.60	199597.88
86529.72	172624.77	199497.64
86515.14	172509.05	199397.53
86500.55	172393.45	199297.52
86485.95	172277.97	199197.64
86471.34	172162.61	199097.87
86456.73	172047.36	198998.22
86442.11	171932.22	198898.69
86427.48	171817.20	198799.27
86412.84	171702.30	198699.97
86398.20	171587.51	198600.80
86383.55	171472.83	198501.72
86368.89	171358.27	198402.76
86354.23	171243.82	198303.93
86339.56	171129.49	198205.20
86324.88	171015.27	198106.59
86310.19	170901.16	198008.10
86295.49	170787.17	197909.72
86280.79	170673.29	197811.46
86266.08	170559.53	197713.31
86251.36	170445.87	197615.27
86236.64	170332.33	197517.35
86221.91	170218.90	197419.54
86207.17	170105.59	197321.85
86192.43	169992.38	197224.26
86177.68	169879.29	197126.80
86162.92	169766.31	197029.44

30	Sinus	Tangens	Secan
30	50753.84	58904.50	116059.
31	50778.90	58943.69	116079
32	50803.96	58982.89	116099
33	50829.01	59022.11	116118
34	50854.06	59061.34	116138
35	50879.10	59100.58	116158
36	50904.14	59139.83	116178
37	50929.18	59179.10	116198
38	50954.21	59218.39	116218
39	50979.24	59257.68	116238
40	51004.26	59296.99	116258
41	51029.28	59336.32	116278
42	51054.29	59375.66	116299
43	51079.30	59415.01	116319
44	51104.31	59454.37	116339
45	51129.31	59493.75	116359
46	51154.31	59533.14	116379
47	51179.30	59572.54	116399
48	51204.29	59611.96	116419
49	51229.27	59651.40	116440
50	51254.25	59690.84	116460
51	51279.22	59730.30	116480
52	51304.19	59769.78	116500
53	51329.16	59800.27	116521
54	51354.12	59848.77	116541
55	51379.08	59888.28	116561
56	51404.04	59927.81	116581
57	51428.99	59967.35	116602
58	51453.93	60006.91	116622
59	51478.87	60046.48	116642
60	51503.81	60086.06	116663

Sinus	Tangens	Secans
86162.92	169766.31	197029.44
86148.15	169653.44	196932.20
86133.37	169540.69	196835.07
86118.59	169428 04	196738.05
86103.80	169315.50	196641.14
86089.00	169203.08	196544.34
86074.20	169090.77	196447.67
86059.39	168978.56	196351.10
86044.57	168866.47	196254.64
86029.74	168754.49	196158.29
86014.91	168642.61	196062.06
86000.07	168530.85	195965.93
85985.22	168419.19	195869.92
85970.37	168307.65	195774.01
85955.51	168196.21	195678.22
85940.64	168084.89	195582.54
85925.76	167973.67	195486.97
85910.88	167862.56	195391.50
85895.99	167751.56	195296.15
85881.09	167640.67	195200.91
85866.18	167529.88	195105.77
85851.27	167419.21	195010.75
85836.35	167308.64	194915.83
85821.42	167198.18	194821.02
85806.49	167087.82	194726.32
85791.55	166977.58	194631.73
85776.60	166867.44	194537.25
85761.64	166757.41	194442.88
85746.68	166647.48	194348.61
85731.71	166537.66	194254.45
85716.73	166427.95	194160.40

	Sinus	Tangens	Secans
0	51503.81	60086.06	116663.
1	51528.74	60125.66	116683.
2	51553.67	60165.27	116704.
3	51578.59	60204.90	116724.
4	51603.51	60244.54	116745.
5	51628.42	60284.19	116765.
6	51653.33	60323.86	116785.
7	51678.24	60363.54	116806.
8	51703.14	60403.23	116827.
9	51728.04	60442.94	116847.
10	51752.93	60482.66	116868.
11	51777.82	60522.40	116888.
12	51802.70	60562.15	116909.
13	51827.58	60601.92	116929.
14	51852.46	60641.70	116950.
15	51877.33	60681.49	116971.
16	51902.19	60721.30	116991.
17	51927.05	60761.12	117012.
18	51951.91	60800.95	117033.
19	51976.76	60840.80	117053.
20	52001.61	60880.67	117074.
21	52026.46	60920.54	117095.
22	52051.30	60960.43	117116.
23	52076.13	61000.34	117136.
24	52100.96	61040.26	117157.
25	52125.79	61080.19	117178.
26	52150.61	61120.14	117199.
27	52175.43	61160.11	117220.
28	52200.24	61200.08	117240.
29	52225.05	61240.07	117261.
30	52249.86	61280.08	117282.

Sinus	Tangens	Secans
85716.73	166427.95	194160.40
85701.74	166318.34	194066.46
85686.75	166208.84	193972.62
85671.75	166099.45	193878.89
85656.74	165990.16	193785.27
85641.73	165880.97	193691.76
85626.71	165771.89	193598.35
85611.68	165662.92	193505.05
85596.64	165554.05	193411.85
85581.60	165445.29	193318.76
85566.55	165336.63	193225.78
85551.49	165228.08	193132.90
85536.42	165119.63	193040.13
85521.35	165011.28	192947.46
85506.27	164903.04	192854.90
85491.18	164794.90	192762.44
85476.09	164686.86	192670.09
85460.99	164578.93	192577.84
85445.88	164471.11	192485.70
85430.76	164363.38	192393.66
85415.64	164255.76	192301.73
85400.51	164148.24	192209.90
85385.37	164040.82	192118.17
85370.23	163933.51	192026.55
85355.08	163826.30	191935.03
85339.92	163719.19	191843.62
85324.75	163612.18	191752.30
85309.58	163505.28	191661.09
85294.40	163398.47	191569.99
85279.21	163291.77	191478.99
85264.02	163185.17	191388.09

31	Sinus	Tangens	Secans
30	52249.86	61280.08	117282.7
31	52274.66	61320.10	117303.6
32	52299.45	61360.13	117324.6
33	52324.24	61400.18	117345.5
34	52349.03	61440.24	117366.5
35	52373.81	61480.32	117387.5
36	52398.59	61520.41	117408.5
37	52423.36	61560.52	117429.5
38	52448.13	61600.64	117450.5
39	52472.90	61640.77	117471.6
40	52497.66	61680.92	117492.7
41	52522.41	61721.08	117513.8
42	52547.16	61761.26	117534.9
43	52571.91	61801.45	117556.0
44	52596.65	61841.66	117577.1
45	52621.39	61881.88	117598.3
46	52646.12	61922.11	117619.5
47	52670.85	61962.36	117640.7
48	52695.58	62002.63	117661.9
49	52720.30	62042.91	117683.1
50	52745.02	62083.20	117704.3
51	52769.73	62123.51	117725.6
52	52794.44	62163.83	117746.9
53	52819.14	62204.17	117768.2
54	52843.84	62244.52	117789.5
55	52868.53	62284.88	117810.9
56	52893.22	62325.26	117832.2
57	52917.90	62365.66	117853.6
58	52942.58	62406.07	117875.0
59	52967.26	62446.50	117896.4
60	52991.93	62486.94	117917.8

	Sinus	Tangens	Secans
0	85264.02	163185.17	191388.09
9	85248.81	163078.67	191297.29
8	85233.60	162972.27	191206.59
7	85218.38	162865.97	191116.00
6	85203.16	162759.77	191025.51
5	85187.93	162653.68	190935.12
4	85172.69	162547.68	190844.83
3	85157.44	162441.78	190754.64
2	85142.19	162335.99	190664.56
1	85126.93	162230.29	190574.57
0	85111.66	162124.69	190484.69
9	85096.39	162019.20	190394.91
8	85081.11	161913.80	190305.22
7	85065.82	161808.50	190215.64
6	85050.52	161703.30	190126.16
	85035.22	161598.20	190036.78
	85019.91	161493.20	189947.50
	85004.59	161388.29	189858.32
	84989.27	161283.49	189769.24
	84973.94	161178.78	189680.26
	84958.60	161074.17	189591.38
	84943.25	160969.66	189502.59
	84927.90	160865.25	189413.91
	84912.54	160760.94	189325.32
	84897.17	160656.72	189236.84
	84881.79	160552.60	189148.45
	84866.41	160448.58	189060.16
	84851.02	160344.65	188971.97
	84835.62	160240.82	188883.88
	84820.22	160137.09	188795.89
	84804.81	160033.45	188707.99

	Sinus	Tangens	Secans
0	52991.93	62486.94	117917.84
1	53016.59	62527.39	117939.28
2	53041.25	62567.86	117960.74
3	53065.91	62608.34	117982.22
4	53090.56	62648.84	118003.72
5	53115.21	62689.35	118025.23
6	53139.86	62729.88	118046.76
7	53164.50	62770.42	118068.31
8	53189.13	62810.98	118089.88
9	53213.76	62851.56	118111.47
10	53238.39	62892.15	118133.07
11	53263.01	62932.75	118154.69
12	53287.63	62973.36	118176.33
13	53312.24	63013.99	118197.99
14	53336.85	63054.64	118219.6
15	53361.45	63095.30	118241.3
16	53386.05	63135.98	118263.0
17	53410.64	63176.67	118284.7
18	53435.23	63217.38	118306.5
19	53459.82	63258.10	118328.3
20	53484.40	63298 83	118350.0
21	53508.98	63339.58	118371.8
22	53533.55	63380.35	118393.7
23	53558.12	63421.13	118415.5
24	53582.68	63461.93	118437.4
25	53607.24	63502.74	118459.2
26	53631.79	63543.57	118481.1
27	53656.34	63584.41	118503.0
28	53680.88	63625.27	118525.0
29	53705.42	63666.14	118546.9
30	53729.96	63707.03	118568.9

	Sinus	Tangens	Secans
60	84804.81	160033.45	188707.99
59	84789.39	159929.91	188620.19
58	84773.96	159826.47	188532.49
57	84758.53	159723.12	188444.89
56	84743.09	159619.87	188357.38
55	84727.64	159516.72	188269.97
54	84712.19	159413.66	188182.66
53	84696.73	159310.70	188095.45
52	84681.26	159207.83	188008.33
51	84665.78	159105.05	187921.31
50	84650.30	159002.38	187834.38
49	84634.81	158899.79	187747.55
48	84619.31	158797.30	187660.82
47	84603.81	158694.91	187574.18
46	84588.30	158592.61	187487.64
45	84572.78	158490.41	187401.20
44	84557.25	158388.30	187314.85
43	84541.72	158286.28	187228.59
42	84526.18	158184.36	187142.43
41	84510.63	158082.53	187056.37
40	84495.08	157980.79	186970.40
39	84479.52	157879.15	186884.53
38	84463.95	157777.60	186798.75
37	84448.37	157676.15	186713.06
36	84432.79	157574.79	186627.47
35	84417.20	157473.52	186541.97
34	84401.60	157372.34	186456.57
33	84386.00	157271.26	186371.26
32	84370.39	157170.26	186286.05
31	84354.77	157069.36	186200.93
30	84339.14	156968.56	186115.90

	Sinus	Tangens	Secans
0	52991.93	62486.94	117917.84
1	53016.59	62527.39	117939.28
2	53041.25	62567.86	117960.74
3	53065.91	62608.34	117982.22
4	53090.56	62648.84	118003.72
5	53115.21	62689.35	118025.23
6	53139.86	62729.88	118046.76
7	53164.50	62770.42	118068.31
8	53189.13	62810.98	118089.88
9	53213.76	62851.56	118111.47
10	53238.39	62892.15	118133.07
11	53263.01	62932.75	118154.69
12	53287.63	62973.36	118176.33
13	53312.24	63013.99	118197.99
14	53336.85	63054.64	118219.66
15	53361.45	63095.30	118241.35
16	53386.05	63135.98	118263.06
17	53410.64	63176.67	118284.79
18	53435.23	63217.38	118306.54
19	53459.82	63258.10	118328.30
20	53484.40	63298 83	118350.08
21	53508.98	63339.58	118371.87
22	53533.55	63380.35	118393.7
23	53558.12	63421.13	118415.5
24	53582.68	63461.93	118437.4
25	53607.24	63502.74	118459.2
26	53631.79	63543.57	118481.1
27	53656.34	63584.41	118503.0
28	53680.88	63625.27	118525.0
29	53705.42	63666.14	118546.9
30	53729.96	63707.03	118568.9

	Sinus	Tangens	Secans
60	84804.81	160033.45	188707.99
59	84789.39	159929.91	188620.19
58	84773.96	159826.47	188532.49
57	84758.53	159723.12	188444.89
56	84743.09	159619.87	188357.38
55	84727.64	159516.72	188269.97
54	84712.19	159413.66	188182.66
53	84696.73	159310.70	188095.45
52	84681.26	159207.83	188008.33
51	84665.78	159105.05	187921.31
50	84650.30	159002.38	187834.38
49	84634.81	158899.79	187747.55
48	84619.31	158797.30	187660.82
47	84603.81	158694.91	187574.18
46	84588.30	158592.61	187487.64
45	84572.78	158490.41	187401.20
44	84557.25	158388.30	187314.85
43	84541.72	158286.28	187228.59
42	84526.18	158184.36	187142.43
41	84510.63	158082.53	187056.37
40	84495.08	157980.79	186970.40
9	84479.52	157879.15	186884.53
8	84463.95	157777.60	186798.75
7	84448.37	157676.15	186713.06
6	84432.79	157574.79	186627.47
5	84417.20	157473.52	186541.97
4	84401.60	157372.34	186456.57
3	84386.00	157271.26	186371.26
2	84370.39	157170.26	186286.05
1	84354.77	157069.36	186200.93
0	84339.14	156968.56	186115.90

32	Sinus	Tangens	Secans
30	53729.96	63707.03	118568.91
31	53754.45	63747.93	118590.89
32	53779.02	63788.85	118612.89
33	53803.54	63829.78	118634.91
34	53828.06	63870.73	118656.95
35	53852.57	63911.69	118679.00
36	53877.08	63952.67	118701.07
37	53901.58	63993.66	118723.16
38	53926.08	64034.67	118745.27
39	53950.58	64075.69	118767.40
40	53975.07	64116.73	118789.55
41	53999.55	64157.79	118811.71
42	54024.03	64198.86	118833.89
43	54048.51	64239.95	118856.09
44	54072.98	64281.05	118878.31
45	54097.45	64322.16	118900.55
46	54121.91	64363.29	118922.81
47	54146.37	64404.44	118945.08
48	54170.82	64445.60	118967.37
49	54195.27	64486.78	118989.68
50	54219.71	64527.97	119012.01
51	54244.15	64569.18	119034.36
52	54268.59	64610.41	119056.73
53	54293.02	64651.65	119079.12
54	54317.44	64692.90	119101.52
55	54341.86	64734.17	119123.94
56	54366.28	64775.46	119146.38
57	54390.69	64816.76	119168.84
58	54415.10	64858.08	119191.32
59	54439.50	64899.41	119213.82
60	54463.90	64940.76	119236.33

Sinus	Tangens	Secans
84339.14	156968.56	186115.90
84323.51	156867.84	186030.96
84307.87	156767.22	185946.12
84292.22	156666.69	185861.38
84276.57	156566.25	185776.72
84260.91	156465.90	185692.16
84245.24	156365.64	185607.69
84229.56	156265.48	185523.31
84213.88	156165.40	185439.03
84198.19	156065.42	185354.83
84182.49	155965.52	185270.73
84166.79	155865.72	185186.72
84151.08	155766.01	185102.81
84135.36	155666.39	185018.98
84119.63	155566.85	184935.25
84103.90	155467.41	184851.61
84088.16	155368.06	184768.05
84072.41	155268.80	184684.59
84056.66	155169.63	184601.23
84040.90	155070.54	184517.95
84025.13	154971.55	184434.76
84009.35	154872.64	184351.66
83993.57	154773.83	184268.66
83977.78	154675.10	184185.74
83961.98	154576.46	184102.92
83946.18	154477.92	184020.18
83930.37	154379.46	183937.53
83914.55	154281.08	183854.98
83898.73	154182.80	183772.51
83882.90	154084.60	183690.13
83867.06	153986.50	183607.84

33	Sinus	Tangens	Secans
0	54463.90	64940.76	119236.3
1	54488.30	64982.12	119258.8
2	54512.69	65023.50	119281.4
3	54537.07	65064.90	119303.9
4	54561.45	65106.31	119326.5
5	54585.83	65147.74	119349.1
6	54610.20	65189.18	119371.8
7	54634.56	65230.64	119394.4
8	54658.92	65272.11	119417.1
9	54683.28	65313.60	119439.8
10	54707.63	65355.11	119462.5
11	54731.98	65396.63	119485.2
12	54756.32	65438.17	119507.9
13	54780.66	65479.72	119530.7
14	54804.99	65521.29	119553.5
15	54829.32	65562.87	119576.3
16	54853.65	65604.47	119599.1
17	54877.97	65646.09	119621.9
18	54902.28	65687.72	119644.7
19	54926.59	65729.37	119667.6
20	54950.90	65771.03	119690.5
21	54975 20	65812.71	119713.4
22	54999.50	65854.41	119736.3
23	55023.79	65896.12	119759.3
24	55048.08	65937.85	119782.3
25	55072.36	65979.59	119805.2
26	55096.64	66021.35	119828.2
27	55120.91	66063.13	119851.3
28	55145.18	66104.92	119874.3
29	55169.44	66146.73	119897.4
30	55193.70	66188.56	119920.4

Sinus	Tangens	Secans
83867.06	153986.50	183607.84
83851.21	153888.48	183525.64
83835.36	153790.55	183443.53
83819.50	153692.70	183361.51
83803.63	153594.94	183279.58
83787.75	153497.27	183197.74
83771.87	153399.69	183115.99
83755.98	153302.20	183034.32
83740 08	153204.79	182952.74
83724.18	153107.47	182871.25
83708.27	153010.23	182789.85
83692.35	152913.08	182708.54
83676.43	152816.02	182627.31
83660.50	152719.04	182546.17
83644.56	152622.15	182465.12
83628.61	152525.35	182384.16
83612.66	152428.63	182303.28
83596.70	152332.00	182222.49
83580.73	152235.45	182141.79
83564.76	152138.99	182061.18
83548.78	152042.61	181980.65
83532.79	151946.32	181900.21
83516.80	151850.12	181819.85
83500.80	151754.00	181739.58
83484.79	151657.96	181659.40
83468.77	151562.01	181579.30
83452.75	151466.14	181499.29
83436.72	151370.36	181419.37
83420.68	151274.66	181339.53
83404.63	151179.05	181259.77
83388.58	151083.52	181180.10

	Sinus	Tangens	Secans
30	55193.70	66188.56	119920.49
31	55217.95	66230.40	119943.59
32	55242.20	66272.26	119966.71
33	55266.45	66314.13	119989.85
34	55290.69	66356.02	120013.01
35	55314.92	66397.92	120036.19
36	55339.15	66439.84	120059.38
37	55363.38	66481.78	120082.59
38	55387.60	66523.73	120105.82
39	55411.82	66565.70	120129.07
40	55436.03	66607.69	120152.34
41	55460.24	66649.69	120175.63
42	55484.44	66691.71	120198.94
43	55508.64	66733.75	120222.27
44	55532.83	66775.80	120245.62
45	55557.02	66817.87	120268.99
46	55581.21	66859.95	120292.37
47	55605.39	66902.05	120315.77
48	55629.56	66944.17	120339.19
49	55653.73	66986.30	120362.64
50	55677.90	67028.45	120386.10
51	55702.06	67070.62	120409.58
52	55726.21	67112.80	120433.08
53	55750.36	67155.00	120456.60
54	55774.51	67197.21	120480.14
55	55798.65	67239.44	120503.70
56	55822.79	67281.69	120527.28
57	55846.92	67323.96	120550.88
58	55871.05	67366.24	120574.50
59	55895.17	67408.54	120598.14
60	55919.29	67450.85	120621.80

Sinus	Tangens	Secans
83388.58	151083.52	181180.10
83372.52	150988.07	181100.52
83356.45	150892.71	181021.02
83340.38	150797.43	180941.61
83324.30	150702.24	180862.28
83308.21	150607.13	180783.04
83292.12	150512.10	180703.88
83276.02	150417.16	180624.81
83259.91	150322.30	180545.82
83243.80	150227.52	180466.91
83227.68	150132.82	180388.09
83211.55	150038.20	180309.35
83195.41	149943.67	180230.70
83179.27	149849.22	180152.13
83163.12	149754.86	180073.65
83146.96	149660.58	179995.25
83130.79	149566.38	179916.93
83114.62	149472.26	179838.69
83098.44	149378.22	179760.54
83082.26	149284.26	179682.47
83066.07	149190.38	179604.48
83049.87	149096.59	179526.58
83033.66	149002.88	179448.76
83017.45	148909.25	179371.02
83001.23	148815.70	179293.37
82985.00	148722.23	179215.80
82968.76	148628.84	179138.31
82952.52	148535.53	179060.90
82936.27	148442.30	178983.58
82920.02	148349.16	178906.33
82903.76	148256.10	178829.16

34	Sinus	Tangens	Secans
0	55919.29	67450.85	120621.8
1	55943.40	67493.18	120645.4
2	55967.51	67535.53	120669.1
3	55991.61	67577.90	120692.8
4	56015.71	67620.28	120716.6
5	56039.81	67662.68	120740.3
6	56063.90	67705.09	120764.1
7	56087.98	67747.52	120787.9
8	56112.06	67789.97	120811.7
9	56136.14	67832.44	120835.5
10	56160.21	67874.92	120859.4
11	56184.28	67917.42	120883.3
12	56208.34	67959.93	120907.2
13	56232.39	68002.46	120931.1
14	56256.44	68045.01	120955.0
15	56280.49	68087.58	120979.0
16	56304.53	68130.16	121002.9
17	56328.57	68172.76	121026.9
18	56352.60	68215.38	121050.9
19	56376.63	68258.01	121075.0
20	56400.65	68300.66	121099.0
21	56424.67	68343.33	121123.1
22	56448.69	68386.01	121147.2
23	56472.70	68428.71	121171.3
24	56496.70	68471.43	121195.4
25	56520.70	68514.17	121219.6
26	56544.69	68556.92	121243.7
27	56568.68	68599.69	121267.9
28	56592.67	68642.47	121292.1
29	56616.65	68685.27	121316.4
30	56640.62	68728.10	121340.6

	Sinus	Tangens	Secans
	82903.76	148256.10	178829.16
	82887.49	148163.11	178752.08
	82871.21	148070.21	178675.08
	82854.93	147977.38	178598.17
	82838.64	147884.63	178521.33
	82822.34	147791.97	178444.57
	82806.03	147699.38	178367.90
	82789.72	147606.88	178291.31
	82773.40	147514.45	178214.79
	82757.07	147422.10	178138.36
	82740.74	147329.83	178062.01
	82724.40	147237.64	177985.74
	82708.05	147145.53	177909.55
	82691.70	147053.80	177833.43
	82675.34	146961.55	177757.40
	82658.97	146869.67	177681.45
	82642.60	146777.87	177605.58
	82626.22	146686.16	177529.79
	82609.83	146594.52	177454.08
	82593.43	146502.96	177378.45
	82577.03	146411.47	177302.90
	82560.62	146320.07	177227.43
	82544.20	146228.74	177152.04
	82527.78	146137.49	177076.73
	82511.35	146046.32	177001.49
	82494.91	145955.22	176926.33
	82478.47	145864.20	176851.25
	82462.02	145773.26	176776.25
	82445.56	145682.40	176701.33
	82429.09	145591.61	176626.49
	82412.62	145500.90	176551.73

	Sinus	Tangens	Secans
30	56640.62	68728.10	121340.64
31	56664.59	68770.94	121364.91
32	56688.56	68813.79	121389.20
33	56712.52	68856.66	121413.51
34	56736.48	68899.55	121437.83
35	56760.43	68942.46	121462.18
36	56784.37	68985.38	121486.55
37	56808.31	69028.32	121510.94
38	56832.25	69071.28	121535.35
39	56850.18	69114.25	121559.78
40	56880.11	69157.24	121584.23
41	56904.03	69200.25	121608.70
42	56927.95	69243.28	121633.19
43	56951.86	69286.33	121657.70
44	56975.77	69329.39	121682.23
45	56999.68	69372.47	121706.78
46	57023.58	69415.57	121731.35
47	57047.47	69458.68	121755.94
48	57071.36	69501.81	121780.55
49	57095.24	69544.96	121805.18
50	57119.12	69588.13	121829.83
51	57142.99	69631.31	121854.50
52	57166.86	69674.51	121879.19
53	57190.73	69717.73	121903.90
54	57214.59	69760.97	121928.64
55	57238.44	69804.22	121953.39
56	57262.29	69847.49	121978.16
57	57286.14	69890.78	122002.96
58	57309.98	69934.09	122027.77
59	57333.81	69977.41	122052.60
60	57357.64	70020.75	122077.46

Sinus	Tangens	Secans
82412.62	145500.90	176551.73
82396.14	145410.27	176477.04
82379.65	145319.71	176402.43
82363.16	145229.23	176327.91
82346.66	145138.83	176253.45
82330.15	145048.50	176179.08
82313.64	144958.25	176104.78
82297.12	144868.08	176030.56
82280.59	144777.98	175956.42
82264.05	144687.96	175882.36
82247.51	144598.01	175808.37
82230.96	144508.14	175734.46
82214.40	144418.34	175660.63
82197.84	144328.62	175586.87
82181.27	144238.97	175513.19
82164.69	144149.40	175439.59
82148.11	144059.91	175366.07
82131.52	143970.49	175292.62
82114.92	143881.14	175219.24
82098.31	143791.87	175145.94
82081.70	143702.68	175072.73
82065.08	143613.56	174999.58
82048.46	143524.51	174926.51
82031.83	143435.54	174853.52
82015.19	143346.64	174780.60
81998.54	143257.81	174707.76
81981.89	143169.06	174634.99
81965.23	143080.39	174562.30
81948.56	142991.78	174489.69
81931.89	142903.26	174417.15
81915.21	142814.80	174344.68

35	Sinus	Tangens	Secans
0	57357.64	70020.75	122077.46
1	57381.47	70064.11	122102.33
2	57405.29	70107.49	122127.23
3	57429.11	70150.89	122152.15
4	57452.92	70194.30	122177.08
5	57476.72	70237.73	122202.04
6	57500.52	70281.18	122227.02
7	57524.32	70324.65	122252.02
8	57548.11	70368.13	122277.03
9	57571.90	70411.63	122302.07
10	57595.68	70455.15	122327.13
11	57619.46	70498.69	122352.21
12	57643.23	70542.24	122377.32
13	57667.00	70585.81	122402.44
14	57690.76	70629.40	122427.58
15	57714.52	70673.01	122452.74
16	57738.27	70716.64	122477.93
17	57762.02	70760.29	122503.15
18	57785.76	70803.95	122528.39
19	57809.50	70847.63	122553.65
20	57833.23	70891.33	122578.93
21	57856.96	70935.05	122604.24
22	57880.68	70978.78	122629.47
23	57904.40	71022.53	122654.82
24	57928.12	71066.30	122680.19
25	57951.83	71110.09	122705.58
26	57975.53	71153.90	122730.99
27	57999.23	71197.73	122756.42
28	58022.92	71241.57	122781.87
29	58046.61	71285.43	122807.34
30	58070.30	71329.31	122832.83

Sinus	Tangens	Secans
81915.21	142814.80	174344.68
81898.52	142726.42	174272.29
81881.82	142638.11	174199.97
81865.12	142549.87	174127.73
81848.41	142461.71	174055.56
81831.69	142373.62	173983.47
81814.97	142285.61	173911.45
81798.24	142197.66	173839.51
81781.50	142109.79	173767.64
81764.76	142022.00	173695.85
81748.01	141934.27	173624.13
81731.25	141846.62	173552.47
81714.49	141759.04	173480.90
81697.72	141671.53	173409.41
81680.94	141584.09	173337.98
81664.15	141496.73	173266.63
81647.36	141409.43	173195.35
81630.56	141322.21	173124.14
81613.76	141235.06	173053.01
81596.95	141147.99	172981.95
81580.13	141060.98	172910.96
81563.30	140974.05	172840.05
81546.47	140887.18	172769.21
81529.63	140800.39	172698.44
81512.78	140713.67	172627.74
81495.93	140627.02	172557.12
81479.08	140540.44	172486.57
81462.19	140453.93	172416.09
81445.32	140367.45	172345.68
81428.44	140281.13	172275.34
81411.55	140194.83	172205.08

35	Sinus	Tangens	Secans
30	58070.30	71329.31	122832.6
31	58093.98	71373.21	122858.1
32	58117.65	71417.13	122883.7
33	58141.32	71461.06	122909.2
34	58164.98	71505.01	122934.8
35	58188.64	71548.98	122960.3
36	58212.30	71592.97	122985.9
37	58235.95	71636.98	123011.6
38	58259.59	71681.01	123037.2
39	58283.23	71725.05	123062.9
40	58306.87	71769.11	123088.6
41	58330.50	71813.19	123114.3
42	58354.12	71857.29	123140.0
43	58377.74	71901.41	123165.8
44	58401.36	71945.55	123191.5
45	58424.97	71989.70	123217.3
46	58448.57	72033.87	123243.1
47	58472.17	72078.06	123269.0
48	58495.77	72122.27	123294.8
49	58519.36	72166.50	123320.7
50	58542.94	72210.75	123346.6
51	58566.52	72255.02	123372.5
52	58590.10	72299.31	123398.5
53	58613.67	72343.61	123424.4
54	58637.24	72387.93	123450.4
55	58660.80	72432.27	123476.4
56	58684.35	72476.63	123502.4
57	58707.90	72521.01	123528.5
58	58731.45	72565.41	123554.5
59	58754.99	72609.83	123580.6
60	58778.53	72654.26	123606.8

Sinus	Tangens	Secans
81411.55	140194.83	172205.08
81394.65	140108.60	172134.89
81377.75	140022.45	172064.77
81360.84	139936.36	171994.72
81343.93	139850.34	171924.75
81327.01	139764.40	171854.84
81310.08	139678.52	171785.01
81293.14	139592.72	171715.25
81276.20	139506.98	171645.56
81259.25	139421.31	171575.94
81242.29	139335.71	171506.39
81225.32	139250.18	171436.91
81208.35	139164.73	171367.50
81191.37	139079.34	171298.17
81174.39	138994.01	171228.90
81157.40	138908.76	171159.70
81140.40	138823.58	171090.58
81123.39	138738.46	171021.52
81106.38	138653.42	170952.54
81089.36	138568.44	170883.62
81072.33	138483.53	170814.78
81055.30	138398.69	170746.00
81038.26	138313.92	170677.30
81021.21	138229.22	170608.66
81004.16	138144.58	170540.10
80987.10	138060.01	170471.60
80970.03	137975.51	170403.18
80952.96	137891.08	170334.82
80935.88	137806.72	170266.53
80918.79	137722.42	170198.31
80901.70	137638.19	170130.16

36	Sinus	Tangens	Secans
0	58778.53	72654.26	123606.8
1	58802.06	72698.71	123632.9
2	58825.58	72743.18	123659.0
3	58849.10	72787.67	123685.2
4	58872.62	72832.18	123711.4
5	58896.13	72876.71	123737.6
6	58919.64	72921.26	123763.9
7	58943.14	72965.82	123790.1
8	58966.63	73010.40	123816.4
9	58990.12	73055.01	123842.7
10	59013.61	73099.63	123869.1
11	59037.09	73144.27	123895.4
12	59060.57	73188.94	123921.8
13	59084.04	73233.62	123948.2
14	59107.50	73278.31	123974.6
15	59130.96	73323.03	124001.0
16	59154.42	73367.77	124027.5
17	59177.87	73412.53	124054.0
18	59201.32	73457.30	124080.5
19	59224.76	73502.10	124107.0
20	59248.19	73546.91	124133.
21	59271.62	73591.74	124160.
22	59295.05	73636.60	124186.
23	59318.47	73681.47	124213.
24	59341.89	73726.36	124239.
25	59365.30	73771.27	124266.
26	59388.71	73816.20	124293.
27	59412.11	73861.15	124320.
28	59435.50	73906.11	124346.
29	59458.89	73951.10	124373.
30	59482.28	73996.11	124400.

Sinus	Tangens	Secans
80901.76	137638.19	170130.16
80884.60	137554.03	170062.08
80867.49	137469.94	169994.07
80850.37	137385.91	169926.12
80833.25	137301.95	169858.25
80816.12	137218.05	169790.44
80798.99	137134.23	169722.71
80781.85	137050.47	169655.04
80764.70	136966.78	169587.43
80747.54	136883.15	169519.90
80730.38	136799.59	169452.44
80713.21	136716.10	169385.04
80696.03	136632.67	169317.71
80678.85	136549.31	169250.45
80661.66	136466.02	169183.26
80644.46	136382.79	169116.13
80627.26	136299.63	169049.07
80610.05	136216.53	168982.08
80592.83	136133.50	168915.16
80575.60	136050.54	168848.30
80558.37	135967.64	168781.51
80541.13	135884.81	168714.79
80523.89	135802.04	168648.14
80506.64	135719.34	168581.55
80489.38	135636.70	168515.03
80472.11	135554.13	168448.57
80454.84	135471.62	168382.18
80437.56	135389.18	168315.86
80420.28	135306.80	168249.61
80402.99	135224.49	168183.42
80385.69	135142.24	168117.30

	Sinus	Tangens	Secans
30	59482.28	73996.11	124400.26
31	59505.66	74041.14	124427.05
32	59529.03	74086.18	124453.86
33	59552.40	74131.24	124480.69
34	59575.77	74176.33	124507.54
35	59599.13	74221.43	124534.42
36	59622.49	74266.55	124561.32
37	59645.84	74311.70	124588.24
38	59669.18	74356.86	124615.18
39	59692.52	74402.04	124642.14
40	59715.86	74447.24	124669.12
41	59739.19	74492.46	124696.12
42	59762.51	74537.70	124723.14
43	59785.83	74582.96	124750.20
44	59809.15	74628.24	124777.28
45	59832.46	74673.54	124804.40
46	59855.76	74718.86	124831.54
47	59879.06	74764.20	124858.69
48	59902.36	74809.56	124885.87
49	59925.65	74854.94	124913.08
50	59948.93	74900.33	124940.32
51	59972.21	74945.75	124967.48
52	59995.49	74991.19	124994.78
53	60018.76	75036.65	125021.98
54	60042.02	75082.12	125049.29
55	60065.28	75127.62	125076.62
56	60088.53	75173.14	125103.98
57	60111.78	75218.67	125131.36
58	60135.03	75264.23	125158.76
59	60158.27	75309.81	125186.18
60	60181.50	75355.40	125213.62

Sinus	Tangens	Secans
80385.69	135142.24	168117.30
80368.38	135060.06	168051.24
80351.07	134977.94	167985.25
80333.75	134895.89	167919.33
80316.42	134813.90	167853.47
80299.09	134731.97	167787.68
80281.75	134650.11	167721.95
80264.40	134568.32	167656.29
80247.05	134486.58	167590.70
80229.69	134404.92	167525.17
80212.32	134323.31	167459.70
80194.94	134241.77	167394.30
80177.56	134160.29	167328.97
80160.17	134078.88	167263.70
80142.78	133997.53	167198.50
80125.38	133916.24	167133.36
80107.97	133835.02	167068.28
80090.56	133753.86	167003.28
80073.14	133672.76	166938.33
80055.71	133591.72	166873.45
80038.27	133510.75	166808.64
80020.83	133429.84	166743.89
80003.38	133349.00	166679.20
79985.93	133268.22	166614.58
79968.47	133187.49	166550.02
79951.00	133106.84	166485.52
79933.52	133026.24	166421.09
79916.04	132945.71	166356.73
79898.55	132865.24	166292.43
79981.05	132784.83	166228.19
79863.55	132704.48	166164.01

	Sinus	Tangens	Secans
0	60181.50	75355.40	125213.57
1	60204.73	75401.02	125241.02
2	60227.95	75446.66	125268.50
3	60251.17	75492.32	125296.01
4	60274.39	75537.99	125323.53
5	60297.60	75583.69	125351.08
6	60320.80	75629.41	125378.65
7	60344.00	75675.14	125406.25
8	60367.19	75720.90	125433.87
9	60390.38	75766.68	125461.51
10	60413.56	75812.48	125489.17
11	60436.74	75858.29	125516.85
12	60459.91	75904.13	125544.56
13	60483.08	75949.99	125572.29
14	60506.24	75995.87	125600.05
15	60529.40	76041.77	125627.82
16	60552.55	76087.69	125655.62
17	60575.70	76133.63	125683.45
18	60598.84	76179.59	125711.29
19	60621.98	76225.57	125739.16
20	60645.11	76271.57	125767.05
21	60668.23	76317.59	125794.97
22	60691.35	76363.63	125822.91
23	60714.47	76409.69	125850.87
24	60737.58	76455.77	125878.85
25	60760.69	76501.88	125906.86
26	60783.79	76548.00	125934.89
27	60806.89	76594.14	125962.94
28	60829.98	76640.31	125991.02
29	60853.06	76686.49	126019.12
30	60876.14	76732.70	126047.24

	Sinus	Tangens	Secans
o	79863.55	132704.48	166164.01
9	79846.04	132624.20	166099.90
8	79828.52	132543.97	166035.85
7	79811.00	132463.81	165971.87
6	79793.47	132383.71	165907.95
5	79775.93	132303.68	165844.09
4	79758.39	132223.70	165780.30
3	79740.84	132143.79	165716.57
2	79723.28	132063.93	165652.90
1	79705.72	131984.14	165589.29
o	79688.15	131904.41	165525.75
9	79670.57	131824.74	165462.27
8	79652.99	131745.13	165398.85
7	79635.40	131665.59	165335.50
6	79617.80	131586.10	165272.21
5	79600.20	131506.68	165208.98
4	79582.59	131427.31	165145.81
3	79564.97	131348.01	165082.70
2	79547.35	131268.76	165019.66
1	79529.72	131189.58	164956.68
0	79512.08	131110.46	164893.76
9	79494.43	131031.40	164830.90
8	79476.78	130952.39	164768.11
7	79459.12	130873.45	164705.37
6	79441.46	130794.57	164642.70
5	79423.79	130715.75	164580.09
4	79406.11	130636.99	164517.54
3	79388.43	130558.28	164455.06
2	79370.74	130479.64	164392.63
1	79353.04	130401.06	164330.27
0	79335.33	130322.54	164267.96

37	Sinus	Tangens	Secans
30	60876.14	76732.70	126047.24
31	60899.22	76778.93	126075.39
32	60922.29	76825.17	126103.56
33	60945.35	76871.44	126131.75
34	60968.41	76917.73	126159.97
35	60991.47	76964.04	126188.20
36	61014.52	77010.37	126216.46
37	61037.56	77056.72	126244.75
38	61060.60	77103.09	126273.06
39	61083.63	77149.48	126301.40
40	61106.66	77195.89	126329.75
41	61129.68	77242.33	126358.13
42	61152.70	77288.79	126386.53
43	61175.72	77335.26	126414.96
44	61198.73	77381.75	126443.41
45	61221.73	77428.27	126471.88
46	61244.73	77474.81	126500.38
47	61267.72	77521.37	126528.90
48	61290.71	77567.95	126557.45
49	61313.69	77614.55	126586.01
50	61336.66	77661.17	126614.60
51	61359.63	77707.82	126643.22
52	61382.60	77754.48	126671.86
53	61405.56	77801.17	126700.52
54	61428.52	77847.88	126729.21
55	61451.47	77894.60	126757.92
56	61474.42	77941.35	126786.65
57	91497.36	77988.12	126815.41
58	61520.29	78034.92	126844.19
59	61543.22	78081.73	126872.99
60	61566.15	78128.56	126901.82

	Sinus	Tangens	Secans
0	79335.33	130322.54	164267.96
9	79317.62	130244.07	164205.72
8	79299.90	130165.67	164143.54
7	79282.18	130087.32	164081.42
6	79264.45	130009.04	164019.36
5	79246.71	129930.81	163957.36
4	79228.96	129852.65	163895.42
3	79211.21	129774.54	163833.55
2	79193.45	129696.49	163771.73
1	79175.69	129618.50	163709.97
0	79157.92	129540.57	163648.28
9	79140.14	129462.69	163586.64
8	79122.35	129384.88	163525.07
7	79104.56	129307.12	163463.55
6	79086.76	129229.43	163402.10
5	79068.96	129151.79	163340.70
4	79051.15	129074.21	163279.37
3	79033.33	128996.69	163218.09
2	79015.50	128919.22	163156.88
1	78997.67	128841.82	163095.72
0	78979.83	128764.47	163034.62
9	78961.98	128687.18	162973.59
8	78944.13	128609.95	162912.61
7	78926.27	128532.77	162851.69
6	78908.41	128455.66	162790.83
5	78890.54	128378.60	162730.03
4	78872.66	128301.60	162669.29
3	78854.77	128224.66	162608.61
2	78836.88	128147.76	162547.99
1	78818.98	128070.93	162487.43
0	78801.07	127994.16	162426.92

	Sinus	Tangens	Secans
0	61566.15	78128.56	126901.82
1	61589.07	78175.42	126930.67
2	61611.98	78222.29	126959.55
3	61634.89	78269.19	126988.45
4	61657.79	78316.11	127017.37
5	61680.69	78363.05	127046.32
6	61703.59	78410.02	127075.29
7	61726.48	78457.00	127104.29
8	61740.36	78504.00	127133.31
9	61772.24	78551.03	127162.35
10	61795.11	78598.08	127191.42
11	61817.98	78645.15	127220.51
12	61840.84	78692.24	127249.63
13	61863.70	78739.35	127278.77
14	61886.55	78786.49	127307.94
15	61909.40	78833.64	127337.12
16	61932.24	78880.82	127366.34
17	61955.07	78928.02	127395.57
18	61977.90	78975.24	127424.84
19	62000.73	79022.48	127454.12
20	62023.55	79069.75	127483.43
21	62046.36	79117.03	127512.76
22	62069.17	79164.34	217542.12
23	62091.98	79211.67	12757[illegible]1.5
24	62114.78	79259.02	127600.9[illegible]
25	62137.57	79306.40	127630.3[illegible]
26	62160.36	79353.79	127659.8[illegible]
27	62183.14	79401.21	127689.2
28	62205.92	79448.65	127718.7
29	62228.69	79496.11	127748.3
30	62251.46	79543.59	127777.8

	Sinus	Tangens	Secans
0	78801.07	127994.16	162426.92
9	78783.16	127917.45	162366.48
8	78765.24	127840.79	162306.09
7	78747.32	127764.19	162245.76
6	78729.39	127687.64	162185.49
5	78711.45	127611.16	162125.28
4	78693.50	127534.73	162065.13
3	78675.55	127458.36	162005.04
2	78657.59	127382.04	161945.00
1	78639.62	127305.78	161885.02
0	78621.65	127229.57	161825.10
9	78603.67	127153.42	161765.24
8	78585.69	127077.33	161705.44
7	78567.70	127001.30	161645.69
6	78549.70	126925.32	161586.00
5	78531.69	126849.39	161526.37
4	78513.68	126773.53	161466.80
3	78495.66	126697.72	161407.28
2	78477.64	126621.96	161347.83
1	78459.61	126546.26	161288.43
0	78441.57	126470.62	161229.08
9	78423.52	126395.03	161169.80
8	78405.47	126319.50	161110.57
7	78387.41	126244.02	161051.40
6	78369.35	126168.60	160992.28
5	78351.28	126093.23	160933.23
4	78333.20	126017.92	160874.23
3	78315.11	125942.67	160815.28
	78297.02	125867.47	160756.40
	78278.92	125792.32	160697.57
	78260.82	125717.23	160638.79

	Sinus	Tangens	Secans
30	62251.46	79543.59	127777.87
31	62274.22	79591.10	127807.45
32	62296.98	79638.62	127837.05
33	62319.73	79686.17	127866.67
34	62342.48	79733.74	127896.32
35	62365.22	79781.34	127926.00
36	62387.96	79828.95	127955.70
37	62410.69	79876.59	127985.43
38	62433.42	79924.25	128015.18
39	62456.14	79971.93	128044.95
40	62478.85	80019.63	128074.75
41	62501.56	80067.36	128104.57
42	62524.26	80115.11	128134.42
43	62546.96	80162.88	128164.30
44	62569.66	80210.67	128194.20
45	62592.35	80258.48	128224.12
46	62615.03	80306.32	128254.07
47	62637.71	80354.18	128284.04
48	62660.38	80402.06	128314.04
49	62683.05	80449.97	128344.06
50	62705.71	80497.90	128374.11
51	62728.37	80545.85	128404.18
52	62751.02	80593.82	128434.28
53	62773.66	80641.81	128464.40
54	62796.30	80689.83	128494.55
55	62818.94	80737.87	128524.72
56	62841.57	80785.93	128554.92
57	62864.20	80834.01	128585.14
58	62886.82	80882.12	128615.39
59	62909.43	80930.25	128645.66
60	62932.04	80978.40	128675.96

	Sinus	Tangens	Secans
0	78260.82	125717.23	160638.79
9	78242.71	125642.19	160580.08
8	78224.59	125567.21	160521.42
7	78206.46	125492.29	160462.81
6	78188.33	125417.42	160404.26
5	78170,19	125342.60	160345.77
4	78152.05	125267.84	160287.34
3	78133.90	125193.13	160228.96
2	78115.74	125118.48	160170.64
1	78097.57	125043.88	160112.37
0	78079.40	124969.33	160054.16
9	78061.22	124894.84	159996.00
8	78043.04	124820.40	159937.90
7	78024.85	124746.02	159879.86
6	78006.65	124671.69	159821.87
5	77988.45	124597.42	159763.94
4	77970.24	124523.20	159706.06
3	77952.02	124449.03	159648.24
2	77933.80	124374.92	159590.47
1	77915.57	124300.86	159532.76
0	77897.33	124226.85	159475.11
9	77879.08	124152.90	159417.51
8	77860.83	124079.00	159359.96
7	77842.57	124005.15	159302.47
6	77824.31	123931.36	159245.04
5	77806.04	123857.62	159187.66
4	77787.77	123783.93	159130.33
3	77769.49	123710.30	159073.06
2	77751.20	123636.72	159015.84
1	77732.90	123563.19	158958.68
0	77714.60	123489.72	158901.57

39	Sinus	Tangens	Secans
0	62932.04	80978.40	128675.96
1	62954.64	81026.58	128706.28
2	62977.24	81074.78	128736.63
3	62999.83	81123.00	128767.00
4	63022.42	81171.24	128797.40
5	63045.00	81219.51	128827.82
6	63067.58	81267.80	128858.27
7	63090.15	81316.11	128888.75
8	63112.72	81364.44	128919.25
9	63135.28	81412.80	128949.77
10	63157.84	81461.18	128980.32
11	63180.39	81509.58	129010.90
12	63202.93	81558.01	129041.50
13	63225.47	81606.46	129072.13
14	63248.00	81654.93	129102.78
15	63270.53	81703.43	129133.46
16	63293.05	81751.95	129164.16
17	63315.57	81800.49	129194.89
18	63338.08	81849.05	129225.64
19	63360.59	81897.64	129256.42
20	63383.09	81946.25	129287.23
21	63405.59	81994.88	129318.06
22	63428.08	82043.54	129348.92
23	63450.57	82092.22	129379.80
24	63473.05	82140.93	129410.71
25	63495.53	82189.65	129441.64
26	63518.00	82238.40	129472.60
27	63540.46	82287.18	129503.59
28	63562.92	82335.97	129534.60
29	63585.37	82384.79	129565.64
30	63607.82	82433.64	129596.70

	Sinus	Tangens	Secans
0	77714.60	123489.72	158901.57
9	77696.29	123416.29	158844.52
8	77677.97	123342.92	158787.52
7	77659.65	123269.61	158730.58
6	77641.32	123196.34	158673.69
5	77622.98	123123.13	158616.85
4	77604.64	123049.97	158560.07
3	77586.29	122976.87	158503.34
2	77567.94	122903.81	158446.67
1	77549.58	122830.81	158390.05
0	77531.21	122757.86	158333.48
9	77512.83	122684.96	158276.97
8	77494.45	122612.11	158220.51
7	77476.06	122539.32	158164.11
6	77457.67	122466.58	158107.76
5	77439.27	122393.89	158051.46
4	77420.86	122321.25	157995.21
3	77402.44	122248.66	157939.02
2	77384.02	122176.13	157882.89
1	77365.59	122103.64	157826.80
0	77347.16	122031.21	157770.77
9	77328.72	121958.83	157714.79
8	77310.27	121886.50	157658.87
7	77291.82	121814.22	157603.00
6	77273.36	121741.99	157547.18
5	77254.89	121669.82	157491.41
4	77236.42	121597.69	157435.70
3	77217.94	121525.62	157380.04
2	77199.45	121453.59	157324.43
1	77180.96	121381.62	157268.87
0	77162.46	121309.70	157213.37

	Sinus	Tangens	Secans
30	63607.82	82433.64	129596.70
31	63630.26	82482.51	129627.79
32	63652.70	82531.40	129658.90
33	63675.13	82580.31	129690.04
34	63697.56	82629.25	129721.21
35	63719.98	82678.21	129752.40
36	63742.40	82727.19	129783.62
37	63764.81	82776.20	129814.87
38	63787.21	82825.23	129846.14
39	63809.61	82874.29	129877.44
40	63832.01	82923.37	129908.76
41	63854.40	82972.47	129940.11
42	63876.78	83021.60	129971.48
43	63899.16	83070.75	130002.88
44	63921.53	83119.92	130034.31
45	63943.90	83169.12	130065.76
46	63966.26	83218.34	130097.24
47	63988.62	83267.59	130128.74
48	64010.97	83316.86	130160.28
49	64033.32	83366.15	130191.84
50	64055.66	83415.47	130223.43
51	64077.99	83464.81	130255.05
52	64100.32	83514.18	130286.69
53	64122.64	83563.57	130318.34
54	64144.96	83612.98	130350.02
55	64167.27	83662.42	130381.73
56	64189.58	83711.88	130413.46
57	64211.88	83761.36	130445.22
58	64234.18	83810.87	130477.01
59	64256.47	83860.40	130508.82
60	64278.76	83909.96	130540.71

Sinus	Tangens	Secans
77162.46	121309.70	157213.37
77143.95	121237.83	157157.92
77125.44	121166.01	157102.52
77106.92	121094.24	157047.17
77088.39	121022.52	156991.88
77069.86	120950.85	156936.64
77051.32	120879.23	156881.45
77032.78	120807.67	156826.31
77014.23	120736.15	156771.23
76995.67	120664.68	156716.19
76977.10	120593.27	156661.21
76958.53	120521.90	156606.28
76939.95	120450.58	156551.41
76921.37	120379.31	156496.58
76902.78	120308.10	156441.81
76884.18	120236.93	156387.08
76865.58	120165.81	156332.41
76846.97	120094.75	156277.79
76828.35	120023.73	156223.22
76809.73	119952.76	156163.70
76791.10	119881.84	156114.24
76772.46	119810.97	156059.82
76753.82	119740.15	156005.46
76735.17	119669.38	155951.15
76716.51	119598.66	155896.89
76697.85	119527.99	155842.67
76679.18	119457.36	155788.51
76660.51	119386.79	155734.41
76641.83	119316.26	155680.35
76623.14	119245.79	155626.34
76604.44	119175.36	155572.38

40	Sinus	Tangens	Secans
0	64278.76	83909.96	130540.73
1	64301.04	83955.54	130572.61
2	64323.32	84009.15	130604.51
3	64345.59	84058.78	130636.4
4	64367.85	84108.44	130668.3
5	64390.11	84158.12	130700.3
6	64412.36	84207.82	130732.3
7	64434.61	84257.55	130764.4
8	64456.85	84307.30	130796.4
9	64479.09	84357.08	130828.5
10	64501.32	84406.88	130860.7
11	64523.55	84456.70	130892.8
12	64545.77	84506.55	130925.0
13	64567.98	84556.43	130957.2
14	64590.19	84606.33	130989.4
15	64612.40	84656.25	131021.6
16	64634.60	84706.20	131053.9
17	64656.79	84756.17	131086.2
18	64678.98	84806.17	131118.5
19	64701.16	84856.19	131150.9
20	64723.34	84906.24	131183.3
21	64745.51	84956.31	131215.7
22	64767.67	85006.40	131248.1
23	64789.83	85056.52	131280.6
24	64811.99	85106.67	131313.
25	64834.14	85156.84	131345.
26	64856.28	85207.04	131378.
27	64878.42	85257.26	131410.
28	64900.55	85307.50	131443.
29	64922.68	85357.77	131476.
30	64944.80	85408.07	131508.

	Sinus	Tangens	Secans
0	76604.44	119175.36	155572.38
9	76585.74	119104.98	155518.48
8	76567.03	119034.65	155464.62
7	76548.32	118964.37	155410.81
6	76529.60	118894.14	155357.06
5	76510.87	118823.95	155303.35
4	76492.14	118753.82	155249.70
3	76473.40	118683.73	155196.09
2	76454.65	118613.69	155142.54
1	76435.90	118543.70	155089.04
0	76417.14	118473.76	155035.58
9	76398.37	118403.87	154982.18
8	76379.60	118334.02	154928.82
7	76360.82	118264.22	154875.52
6	76342.04	118194.47	154822.26
5	76323.25	118124.77	154769.06
4	76304.45	118055.12	154715.90
3	76285.64	117985.51	154662.80
2	76266.83	117915.95	154609.74
1	76248.01	117846.44	154556.73
0	76229.19	117776.98	154503.78
9	76210.36	117707.56	154450.87
8	76191.52	117638.20	154398.01
7	76172.68	117568.88	154345.20
6	76153.83	117499.60	154292.44
5	76134.97	117430.38	154239.73
4	76116.11	117361.20	154187.06
3	76097.24	117292.07	154134.45
2	76078.37	117222.98	154081.89
1	76059.49	117153.95	154029.37
0	76040.60	117084.96	153976.90

40	Sinus	Tangens	Secans
30	64944.80	85408.07	131508.70
31	64966.92	85458.39	131541.39
32	64989.03	85508.73	131574.10
33	65011.14	85559.10	131606.84
34	65033.24	85609.50	131639.61
35	65055.33	85659.92	131672.41
36	65077.42	85710.37	131705.23
37	65099.50	85760.84	131738.08
38	65121.58	85811.33	131770.96
39	65143.66	85861.85	131803.86
40	65165.72	85912.40	131836.79
41	65187.78	85962.97	131869.75
42	65209.84	86013.57	131902.74
43	65231.89	86064.19	131935.76
44	65253.94	86114.84	131968.81
45	65275.98	86165.51	132001.88
46	65298.01	86216.21	132034.98
47	65320.04	86266.93	132068.11
48	65342.06	86317.68	132101.26
49	65364.08	86368.46	132134.44
50	65386.09	86419.26	132167.65
51	65408.10	86470.09	132200.89
52	65430.10	86520.94	132234.16
53	65452.09	86571.81	132267.45
54	65474.08	86622.71	132300.77
55	65496.06	86673.64	132334.12
56	65518.04	86724.60	132367.50
57	65540.01	86775.58	132400.91
58	65561.98	86826.59	132434.35
59	65583.94	86877.62	132467.81
60	65605.90	86928.68	132501.30

	Sinus	Tangens	Secans
0	76040.60	117084.96	153976.90
9	76021.70	117016.01	153924.49
8	76002.80	116947.12	153872.12
7	75983.89	116878.27	153819.80
6	75964.98	116809.47	153767.52
5	75946.06	116740.71	153715.30
4	75927.13	116672.00	153663.12
3	75908.20	116603.34	153611.00
2	75889.26	116534.72	153558.92
1	75870.31	116466.15	153506.89
0	75851.36	116397.63	153454.91
9	75832.40	116329.16	153402.97
8	75813.43	116260.73	153351.09
7	75794.46	116192.34	153299.25
6	75775.48	116124.00	153247.46
5	75756.50	116055.71	153195.72
4	75737.51	115987.47	153144.03
3	75718.51	115919.27	153002.38
2	75699.50	115851.11	153040.78
1	75680.49	115783.01	152989.23
0	75661.47	115714.95	152937.73
9	75642.4	115646.93	152886.27
8	75623.42	115578.96	152834.87
7	75604.39	115511.04	152783.51
6	75585.35	115443.16	152732.19
5	75566.30	115375.32	152680.93
4	75547.24	115307.54	152629.71
3	75528.18	115239.79	152578.54
2	75509.11	115172.10	152527.41
1	75490.04	115104.45	152476.34
0	75470.96	115036.84	152425.31

	Sinus	Tangens	Secans
0	65605.90	86928.68	132501.30
1	65627.85	86979.76	132534.82
2	65649.80	87030.87	132568.37
3	65671.74	87082.00	132601.94
4	65693.67	87133.16	132635.54
5	65715.60	87184.35	132669.18
6	65737.52	87235.56	132702.84
7	65759.44	87286.80	132736.53
8	65781.35	87338.06	132770.25
9	65803.26	87389.35	132803.99
10	65825.16	87440.67	132837.76
11	65847.06	87492.01	132871.56
12	65868.95	87543.38	132905.39
13	65890.83	87594.78	132939.25
14	65912.71	87646.20	132973.14
15	65934.58	87697.65	133007.06
16	65956.45	87749.12	133041.00
17	65978.31	87800.62	133074.97
18	66000.17	87852.15	133108.97
19	66022.02	87903.70	133143.00
20	66043.86	87955.28	133177.06
21	66065.70	88006.89	133211.15
22	66087.53	88058.52	133245.27
23	66109.36	88110.18	133279.42
24	66131.18	88161.86	133313.59
25	66153.00	88213.57	133347.79
26	66174.81	88265.31	133382.02
27	66196.62	88317.07	133416.28
28	66218.42	88368.86	133450.57
29	66240.22	88420.68	133484.89
30	66262.01	88472.53	133519.24

	Sinus	Tangens	Secans
0	75470.96	115036.84	152425.31
9	75451.87	114969.28	152374.33
8	75432.78	114901.76	152323.39
7	75413.68	114834.29	152272.50
6	75394.57	114766.87	152221.66
5	75375.46	114699.49	152170.87
4	75356.34	114632.15	152120.12
3	75337.21	114564.86	152069.42
2	75318.08	114497.62	152018.76
1	75298.94	114430.41	151968.15
0	75279.80	114363.26	151917.59
9	75260,65	114296.15	151867.08
8	75241.49	114229.08	151816.61
7	75222.33	114162.06	151766.19
6	75203.16	114095.08	151715.81
5	75183.98	114028.15	151665.48
4	75164.80	113961.26	151615.20
3	75145.61	113894.41	151564.96
2	75126.41	113827.61	151514.77
1	75107.21	113760.85	151464.62
0	75088.00	113694.14	151414.52
9	75068.79	113627.47	151364.47
8	75049.57	113560.85	151314.46
7	75030.34	113494 27	151264.50
6	75011.11	113427.73	151214.59
5	74991.87	113361.24	151164.72
4	74972.62	113294.79	151114.89
3	74953.37	113228.39	151065.11
2	74934.11	113162.03	151015.38
1	74914.84	113095.71	150965.69
0	74895.57	113029.44	150916.05

41	Sinus	Tangens	Secans
30	66262.01	88472.53	133519.24
31	66283.79	88524.40	133553.62
32	66305.57	88576.30	133588.03
33	66327.34	88628.22	133622.46
34	66349.11	88680.17	133656.92
35	66370.87	88732.15	133691.41
36	66392.62	88784.16	133725.94
37	66414.37	88836.20	133760.49
38	66436.11	88888.26	133795.07
39	66457.85	88940.34	133829.69
40	66479.59	88992.45	133864.33
41	66501.32	89044.59	133898.99
42	66523.04	89096.75	133933.69
43	66544.75	89148.94	133968.41
44	66566.46	89201.16	134003.17
45	66588.17	89253.41	134037.96
46	66609.87	89305.69	134072.78
47	66631.56	89357.99	134107.63
48	66653.25	89410.32	134142.49
49	66674.93	89462.68	134177.38
50	66696.61	89515.06	134212.31
51	66718.28	89567.47	134247.27
52	66739.94	89619.91	134282.27
53	66761.60	89672.38	134317.29
54	66783.26	89724.87	134352.34
55	66804.91	89777.39	134387.42
56	66826.55	89829.94	134422.53
57	66848.18	89882.52	134457.67
58	66869.81	89935.12	134492.84
59	66891.44	89987.75	134528.04
60	66913.06	90040.41	134563.27

Sinus	Tangens	Secans
74895.57	113029.44	150916.05
74876.25	112963.21	150866.45
74857.01	112897.02	150816.90
74837.72	112830.88	150767.39
74818.42	112764.78	150717.93
74799.12	112698.72	150668.52
74779.81	112632.71	150619.15
74760.49	112566.74	150569.82
74741.17	112500.81	150520.54
74721.84	112434.93	150471.31
74702.51	112369.09	150422.11
74683.17	112303.29	150372.97
74663.82	112237.54	150323.87
74644.46	112171.83	150274.81
74625.10	112106.16	150225.80
74605.74	112040.53	150176.83
74586.37	111974.95	150127.91
74566.99	111909.41	150079.03
74547.60	111843.91	150030.20
74528.21	111778.46	149981.41
74508.81	111713.05	149932.67
74489.40	111647.68	149883.97
74469.99	111582.35	149835.31
74450.57	111517.06	149786.70
74431.15	111451.82	149738.13
74411.72	111386.62	149689.61
74392.29	111321.46	149641.13
74372.85	111256.35	149592.70
74353.40	111191.27	149544.30
74333.94	111126.24	149495.96
74314.48	111061.25	149447.65

	Sinus	Tangens	Secans
0	66913.06	90040.41	134563.2
1	66934.67	90093.09	134598.5
2	66956.28	90145.80	134633.8
3	66977.88	90198.54	134669.1
4	66999.48	90251.31	134704.4
5	67021.07	90304.11	134739.8
6	67042.66	90356.94	134775.2
7	67064.24	90409.79	134810.7
8	67085.82	90462.67	134846.1
9	67107.39	90515.58	134881.6
10	67128.95	90568.51	134917.2
11	67150.51	90621.47	134952.7
12	67172.06	90674.46	134988.3
13	67193.61	90727.48	135023.9
14	67215.15	90780.53	135059.6
15	67236.68	90833.60	135095.3
16	67258.21	90886.71	135131.0
17	67279.73	90939.84	135166.7
18	67301.25	90993.00	135202.5
19	67322.76	91046.19	135238.3
20	67344.27	91099.41	135274.1
21	67365.77	91152.65	135310.0
22	67387.27	91205.92	135345.8
23	67408.76	91259.22	135381.6
24	67430.24	91312.55	135417.4
25	67451.72	91365.91	135453.2
26	67473.19	91419.29	135489.0
27	67494.66	91472.70	135525.0
28	67516.12	91526.15	135561.0
29	67537.57	91579.62	135598.0
30	67559.02	91633.12	135634.0

	Sinus	Tangens	Secans
10	74314.48	111061.25	149447.65
9	74295.01	110996.30	149399.40
8	74275.54	110931.40	149351.18
7	74256.06	110866.53	149303.01
6	74236.57	110801.71	149254.88
5	74217.08	110736.93	149206.80
4	74197.58	110672.19	149158.75
3	74178.08	110607.50	149110.76
2	74158.57	110542.84	149062.80
1	74139.05	110478.23	149014.89
0	74119.53	110413.65	148967.03
9	74100.00	110349.12	148919.20
8	74080.46	110284.63	148871.42
7	74060.92	110220.19	148823.69
6	74041.37	110155.78	148775.99
5	74021.81	110091.41	148728.34
4	74002.25	110027.09	148680.73
3	73982.68	109962.81	148633.17
2	73963.11	109898.56	148585.65
1	73943.53	109834.36	148538.17
0	73923.94	109770.20	148490.73
9	73904.35	109706.08	148443.34
8	73884.75	109642.01	148395.99
7	73865.15	109577.97	148348.68
6	73845.54	109513.97	148301.42
5	73825.92	109450.02	148254.20
4	73806.29	109386.10	148207.02
3	73786.66	109322.23	148159.88
2	73767.02	109258.40	148112.78
1	73747.38	109194.60	148065.73
0	73727.73	109130.85	148018.72

	Sinus	Tangens	Secans
30	67559.02	91633.12	135634.17
31	67580.46	91686.65	135670.34
32	67601.90	91740.20	135706.54
33	67623.33	91793.79	135742.77
34	67644.76	91847.40	135779.03
35	67666.18	91901.04	135815.32
36	67687.60	91954.71	135851.64
37	67709.01	92008.41	135888.00
38	67730.41	92062.14	135924.38
39	67751.81	92115.90	135960.80
40	67773.20	92169.68	135997.25
41	67794.59	92223.50	136033.72
42	67815.97	92277.34	136070.23
43	67837.34	92331.22	136106.77
44	67858.71	92385.12	136143.34
45	67880.07	92439.05	136179.95
46	67901.43	92493.01	136216.58
47	67922.78	92547.00	136253.24
48	67944.13	92601.01	136289.94
49	67965.47	92655.06	136326.67
50	67986.81	92709.14	136363.43
51	68008.14	92763.24	136400.22
52	68029.46	92817.38	136437.04
53	68050.78	92871.54	136473.89
54	68072.09	92925.73	136510.78
55	68093.39	92979.96	136546.70
56	68114.69	93034.21	136584.64
57	68135.99	93088 49	136621.62
58	68157.28	93142.80	136658.63
59	68178.56	93197.14	136695.67
60	68199.84	93251.51	136732.75

	Sinus	Tangens	Secans
0	73727.73	109130.85	148018.72
9	73708.08	109067.14	147971.76
8	73688.42	109003.47	147924.83
7	73668.75	108939.83	147877.95
6	73649.07	108876.24	147831.11
5	73629.39	108812.69	147784.31
4	73609.71	108749.18	147737.55
3	73590.02	108685.71	147690.84
2	73570.32	108622.28	147644.17
1	73550.61	108558.89	147597.54
0	73530.90	108495.54	147550.95
9	73511.18	108432.23	147504.40
8	73491.46	108368.96	147457.90
7	73471.73	108305.73	147411.44
6	73451.99	108242.54	147365.01
5	73432.25	108179.39	147318.64
4	73412.50	108116.28	147272.30
3	73392.75	108053.21	147226.00
2	73372.99	107990.18	147179.75
1	73353.22	107927.18	147133.53
0	73333.45	107864.23	147087.36
9	73313.67	107801.32	147041.23
8	73293.88	107738.44	146995.14
7	73274.09	107675.61	146949.10
6	73254.29	107612.82	146903.09
5	73234.48	107550.06	146857.13
4	73214.67	107487.34	146811.20
3	73194.85	107424.67	146765.32
2	73175.03	107362.03	146719.48
1	73155.20	107299.43	146673.68
0	73135.37	107236.87	146627.92

43	Sinus	Tangens	Secans
0	68199.84	93251.51	136732.75
1	68221.11	93305.91	136769.85
2	68242.37	93360.34	136806.99
3	68263.63	93414.79	136844.16
4	68284.88	93469.28	136881.36
5	68306.13	93523.80	136918.59
6	68327.37	93578.34	136955.86
7	68348.61	93632.92	136993.15
8	68369.84	93687.53	137030.48
9	68391.07	93742.16	137067.84
10	68412.29	93796.83	137105.23
11	68433.50	93851.52	137142.66
12	68454.71	93906.25	137180.11
13	68475.91	93961.01	137217.60
14	68497.11	94015.79	137255.12
15	68518.30	94070.61	137292.68
16	68539.48	94125.45	137330.26
17	68560.66	94180.33	137367.88
18	68581.83	94235.23	137405.53
19	68603.00	94290.17	137443.21
20	68624.16	94345.13	137480.92
21	68645.32	94400.13	137518.67
22	68666.47	94455.16	137556.44
23	68687.61	94510.21	137594.24
24	68708.75	94565.30	137632.10
25	68729.88	94620.42	137669.98
26	68751.01	94675.56	137707.89
27	68772.13	94730.74	137745.83
28	68793.24	94785.95	137783.80
29	68814.35	94841.19	137821.80
30	68835.45	94896.46	137859.83

	Sinus	Tangens	Secans
10	73135.37	107236.87	146627.92
9	73115.53	107174.35	146582.20
8	73095.68	107111.87	146536.52
7	73075.83	107049.43	146490.88
6	73055.97	106987.02	146445.29
5	73036.10	106924.66	146399.73
4	73016.23	106862.33	146354.22
3	72996.35	106800.04	146308.75
2	72976.46	106737.79	146263.31
1	72956.57	106675.58	146217.92
0	72936.67	106613.41	146172.57
59	72916.77	106551.28	146127.26
58	72896.86	106489.18	146081.98
57	72876.94	106427.13	146036.75
56	72857.02	106365.11	145991.56
55	72837.09	106303.13	145946.41
54	72817.16	106241.19	145901.30
53	72797.22	106179.29	145856.23
52	72777.27	106117.42	145811.20
51	72757.32	106055.60	145766.21
50	72737.36	105993.81	145721.27
49	72717.40	105932.06	145676.36
48	72697.43	105870.34	145631.49
47	72677.45	105808.67	145586.66
46	72657.47	105747.03	145541.87
45	72637.48	105685.44	145497.12
44	72617.48	105623.88	145452.41
43	72597.48	105562.35	145407.74
42	72577.47	105500.87	145363.11
41	72557.46	105439.42	145318.52
40	72537.44	105378.01	145273.97

	Sinus	Tangens	Secans
30	68835.45	94896.46	137859.85
31	68856.55	94951.76	137897.92
32	68877.64	95007.09	137936.02
33	68898.73	95062.45	137974.16
34	68919.81	95117.84	138012.33
35	68940.89	95173.26	138050.53
36	68961.96	95228.71	138088.77
37	68983.02	95284.20	138127.04
38	69004.07	95339.71	138165.34
39	69025.12	95395.26	138203.67
40	69046.17	95450.83	138242.04
41	69067.21	95506.44	138280.44
42	69088.24	95562.08	138318.87
43	69109.27	95617.74	138357.34
44	69130.29	95673.44	138395.84
45	69151.31	95729.17	138434.37
46	69172.32	95784.94	138472.94
47	69193.32	95840.73	138511.54
48	69214.32	95896.55	138550.17
49	69235.31	95952.41	138588.83
50	69256.30	96008.29	138627.53
51	69277.28	96064.21	138666.26
52	69298.25	96120.16	138705.03
53	69319.22	96176.14	138743.83
54	69340.18	96232.15	138782.66
55	69361.14	96288.19	138821.53
56	69382.09	96344.27	138860.42
57	69403.04	96400.37	138899.36
58	69423.98	96456.51	138938.32
59	69444.91	96512.68	138977.32
60	69465.84	96568.88	139016.36

	Sinus	Tangens	Secans
30	72537.44	105378.01	145273.97
29	72517.41	105316.64	145229.46
28	72497.38	105255.31	145184.98
27	72477.34	105194.01	145140.55
26	72457.29	105132.75	145096.16
25	72437.24	105071.53	145051.81
24	72417.18	105010.34	145007.49
23	72397.12	104949.20	144963.22
22	72377.05	104888.09	144918.98
21	72356.98	104827.02	144874.78
20	72336.90	104765.98	144830.63
19	72316.81	104704.98	144786.51
18	72296.71	104644.02	144742.43
17	72276.61	104583.10	144698.39
16	72256.51	104522.21	144654.39
15	72236.40	104461.36	144610.43
14	72216.28	104400.55	144566.51
13	72196.15	104339.77	144522.62
12	72176.02	104279.04	144478.78
11	72155.88	104218.33	144434.97
10	72135.74	104157.67	144391.20
9	72115.59	104097.04	144347.48
8	72095.44	104036.45	144303.79
7	72075.28	103975.89	144260.13
6	72055.11	103915.37	144216.52
5	72034.94	103854.89	144172.95
4	72014.76	103794.45	144129.41
3	71994.57	103734.04	144085.91
2	71974.38	103673.67	144042.46
1	71954.18	103613.33	143999.04
0	71933.98	103553.03	143955.65

	Sinus	Tangens	Secans
0	69465.84	96568.88	139016.36
1	69486.76	96625.11	139055.43
2	69507.67	96681.37	139094.53
3	69528.58	96737.67	139133.66
4	69549.49	96794.00	139172.83
5	69570.39	96850.35	139212.03
6	69591.28	96906.74	139251.27
7	69612.17	96963.16	139290.54
8	69633.05	97019.62	139329.85
9	69653.92	97076.10	139369.18
10	69674.79	97132.62	139408.56
11	69695.65	97189.17	139447.96
12	69716.51	97245.75	139487.40
13	69737.36	97302.36	139526.88
14	69758.21	97359.01	139566.39
15	69779.05	97415.69	139605.93
16	69799.88	97472.40	139645.51
17	69820.71	97529.14	139685.12
18	69841.53	97585.91	139724.77
19	69862.34	97642.72	139764.45
20	69883.15	97699.56	139804.16
21	69903.96	97756.43	139843.91
22	69924.76	97813.33	139883.69
23	69945.55	97870.27	139923.51
24	69966.33	97927.24	139963.36
25	69987.11	97984.24	140003.25
26	70007.89	98041.27	140043.17
27	70028.66	98098.33	140083.13
28	70049.42	98155.43	140123.12
29	70070.18	98212.56	140163.15
30	70090.93	98269.73	140203.21

	Sinus	Tangens	Secans
60	71933.98	103553.03	143955.65
59	71913.77	103492.77	143912.31
58	71893.55	103432.54	143869.00
57	71873.33	103372.35	143825.74
56	71853.10	103312.20	143782.51
55	71832.87	103252.08	143739.32
54	71812.63	103191.99	143696.16
53	71792.38	103131.95	143653.05
52	71772.13	103071.94	143609.97
51	71751.87	103011.96	143566.93
50	71731.61	102952.03	143523.93
49	71711.34	102892.12	143480.97
48	71691.06	102832.26	143438.05
47	71670.78	102772.43	143395.16
46	71650.49	102712.63	143352.31
45	71630.19	102652.87	143309.50
44	71609.89	102593.15	143266.72
43	71589.58	102533.46	143223.99
42	71569.27	102473.81	143181.29
41	71548.95	102414.19	143138.63
40	71528.63	102354.61	143096.00
39	71508.30	102295.06	143053.42
38	71487.96	102235.55	143010.87
37	71467.62	102176.08	142968.36
36	71447.27	102116.64	142925.88
35	71426.91	102057.23	142883.44
34	71406.55	101997.86	142841.04
33	71386.18	101938.53	142798.68
32	71365.81	101879.23	142756.36
31	71345.43	101819.97	142714.07
30	71325.05	101760.74	142671.82

44	Sinus	Tangens	Secans
30	70090.93	98269.73	140203.21
31	70111.67	98326.92	140243.30
32	70132.41	98384.15	140283.43
33	70153.14	98441.41	140323.60
34	70173.87	98498.71	140363.80
35	70194.59	98556.03	140404.03
36	70215.30	98613.39	140444.30
37	70236.01	98670.79	140484.60
38	70256.71	98728.21	140524.94
39	70277.41	98785.67	140565.32
40	70298.10	98843.16	140605.73
41	70318.79	98900.69	140646.17
42	70339.47	98958.25	140686.65
43	70360.14	99015.84	140727.17
44	70380.81	99073.46	140767.72
45	70401.47	99131.12	140808.31
46	70422.13	99188.81	140848.93
47	70442.78	99246.54	140889.58
48	70463.42	99304.29	140930.28
49	70484.06	99362.08	140971.00
50	70504.69	99419.91	141011.77
51	70525.32	99477.77	141052.56
52	70545.94	99535.66	141093.40
53	70566.55	99593.58	141134.27
54	70587.16	99651.54	141175.17
55	70607.76	99709.53	141216.11
56	70628.35	99767.56	141257.09
57	70648.94	99825.62	141298.10
58	70669.53	99883.71	141339.15
59	70690.11	99941.84	141380.24
60	70710.68	100000.00	141421.36

	Sinus	Tangens	Secans
30	71325.05	101760.74	142671.82
29	71304.66	101701.55	142629.61
28	71284.26	101642.39	142587.43
27	71263.85	101583.26	142545.29
26	71243.44	101524.17	142503.19
25	71223.02	101465.12	142461.12
24	71202.60	101406.10	142419.09
23	71182.17	101347.12	142377.10
22	71161.74	101288.17	142335.14
21	71141.30	101229.25	142293.23
20	71120.86	101170.37	142251.34
19	71100.41	101111.53	142209.50
18	71079.95	101052.72	142167.69
17	71059.48	100993.94	142125.92
16	71039.01	100935.20	142084.18
15	71018.54	100876.49	142042.48
14	70998.06	100817.82	142000.82
13	70977.57	100759.18	141959.19
12	70957.07	100700.58	141917.61
11	70936.57	100642.01	141876.05
10	70916.07	100583.47	141834.54
9	70895.56	100524.97	141793.05
8	70875.04	100466.51	141751.61
7	70854.51	100408.07	141710.20
6	70833.98	100349.68	141668.83
5	70813.45	100291.31	141627.49
4	70792.91	100232.98	141586.19
3	70772.36	100174.69	141544.93
2	70751.80	100116.42	141503.70
1	70731.24	100058.19	141462.51
0	70710.68	100000.00	141421.36

L'USAGE DES TABLES
TOUCHANT LA MESURE
des Triangles plans.

LEs Triangles ſont de trois façons, à ſçavoir *Rectangles*, *Oxigones* & *Amblygones*, deſquels la deſcription ſelon leurs angles eſt faite par Euclide aux definitions 27, 28, & 29 de ſon premier livre.

La maniere de meſurer le Rectangle eſt le fondement des deux autres: car pour les meſurer, il les faut mettre en deux triangles rectangles par une perpendiculaire.

Pour mettre ou écrire leur forme, des trois côtez & trois angles que châque triangle a, il nous en faut avoir, à ſçavoir *deux Côtez & l'Angle* entre iceux, par la 4. Propoſition.

Ou les *trois Côtez* ſelon la 8. Propoſit.

Ou *un Côté* & *deux Angles*, ſelon la 26. Propoſ. du 1. Liv. d'Euclide, par leſquels termes connus on peut trouver & calculer les autres inconnus.

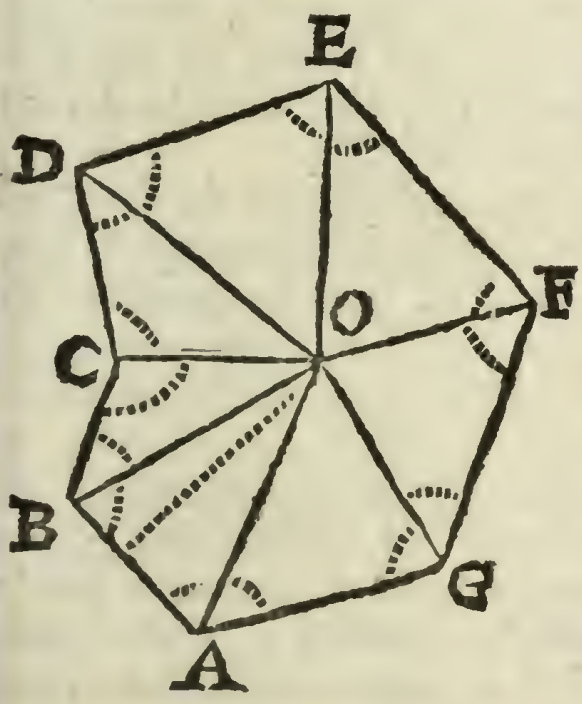
Le fondement de ces comptes eſt la 32 & 47. prop. du 1, & principalement la 4 du 6 livre d'Euclide, qui eſt l'uſage de deux triangles ſemblables: duquel l'un par ſes termes connus eſt fait ſur la terre, & marqué par trois marques ou baſtons, mis ſur les poincts de ſes angles: l'autre eſt compoſé & tiré hors des nombres des tables.

Et comme en toutes ſortes de ſuputations qui arrivent, il eſt bien neceſſaire de ſçavoir à quel raid on uſera les tables, afin que par une ſuputatiõ non ſuperfluë on puiſſe venir à

une

ine certitude requiſe ou ſuffiſante: A cela on s'y comportera comme à la meſure du cercle, pour laquelle on prend les nombres proportionaux d'autant de lettres que la grandeur du cercle le requiert: ſemblablement en ces tables on prendra le raid d'autant de caracteres que la figure à meſurer eſt grande ou petite, ou comprend en ſoy beaucoup ou peu des triangles appendants.

Mais ſi quelqu'un pour la facilité de la upputation pourroit uſer ces tables touours à un meſme raid, comme 10000, & uy ſurvint à meſurer un triangule A B O, duquel la baſe fut de 1000, & ſa perpendiculaire 2000 verges, alors à cauſe de l'incertitude de la derniere lettre des tables, il arriveroit une incertitude d'un pied plus ou moins ſur chacune des deux lignes ſusdites, ce qui emporte ſur la ſuperficie du triangle



150 verges quarrez, plus ou moins que la vraye ſuperficie.

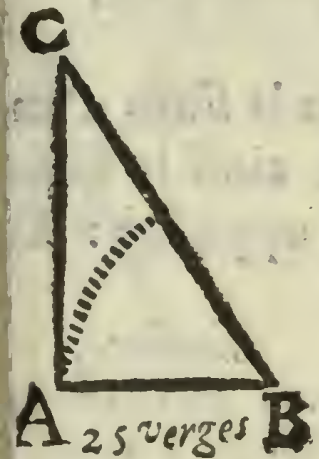
Davantage ſi ce triangle eſtoit une partie d'une grãde ſuperficie, comme d'une eauë excedant la meſure de la veuë A B C D E F G, laquelle pour meſurer par le moyen d'un baſton O, poſé à diſcretion environ le milieu de la figure juſqu'à

qu'à ces angles soit divisé en triangles, desquels on ne puisse mesurer que les angles & le costé A B, il s'ensuit que par le triangle A B O les autres doivent estre connus, comme si par la ligne A O on trouvoit O G, & par O G la ligne O F, puis O E, jusques à ce qu'on revienne à B O: alors parce que O B & O A ont quelque incertitude aux pieds, la faute se trouvera multipliée en circuisant, & tellement inveterée qu'on ne retrouvera pas enfin le mesme nombre pour B O comme on l'avoit du commencement: mais different de quelque quantité de verges, ce qui causeroit une grande faute sur toute la superficie.

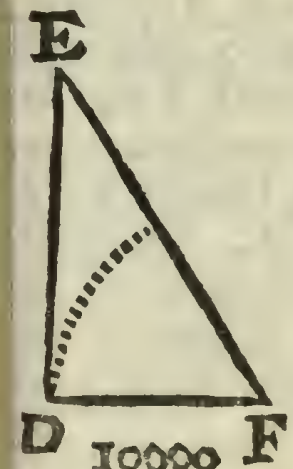
Et pour prevenir tel inconvenient autant qu'il sera possible, il faudroit mesurer & calculer les lignes jusques aux moindres parties des verges, comme les angles sont mesurez jusqu'aux moindres parties de l'instrument, comme sur minutes: ce qui ne se pourroit faire icy sans se servir des tables au Raid de 1000000, & pour l'incertitude de la derniere lettre à 10000000 parties.

Stevin en son deuxiesme livre de la Cosmographie fol. 148, décrit une maniere touchant cela: à sçavoir, que la grandeur de chaque partie du Raid soit assez prés egale à une des moindres parties de la circonference, & comme il divise les degrez en minutes, le quart de la circonference ou l'arc de l'instrument en contiendra 5400 minutes, partant le Raid en pourroit avoir 3438 des mesmes parties, mais pour son incommodité au regard des calculations on prend le plus proche & le plus grand nombre de la progression decuple, comme 10000, & partant sera Raid quand on mesure

:e les angles jusques aux minutes. Il dit de plus que si on pouvoit mesurer les angles jusques aux secondes, il faudroit user les tables au Raid de 1000000, & si de tierces, à 60000000, & du moins à 10000000 parties. Or nous viendrons à la suputation des triangles, là où nous commencerons au *Rectangle*, dont un côté & deux angles sont connus.



Soit du triangle Rectangle A B C, l'angle A droit, B 57 deg. 36 min. & le côté A B 25 verges, on demande combien seront les côtez & angles inconnus.



On cherchera premierement par les tables le triangle semblable au proposé, comme icy D E F, & soit posé D F 10000 (Homologue au donné A B) alors D E sera 15757 tangente, & E F 18663 secante (côtez Homologues à A C, C B, chacun au sien) de angle F ou B, 57 degrez 36 min. puis par 4. prop. du 6. ou la regle de trois, come s'ensuit :

art. D F *long.* A B — *Parties* D E. 15757, E F. 18663 } Vient

10000 — 25 —

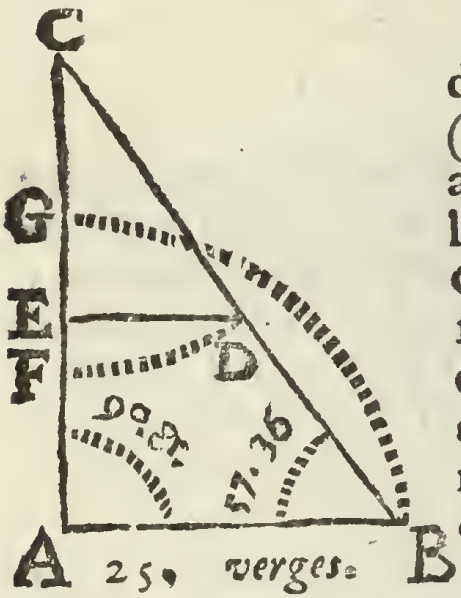
Pour { *longueur* A C 39. 393 (3), C B 46. 657 (3)

Or

Or pour trouver l'angle C, puis que l'angle A eſt droit, s'enſuit par la 32 prop du 1, que les angles B & C enſemble font auſſi un angle droit ou 90 deg partant l'angle B 57 degr. 36, min. oſté de 90 deg. reſte pour l'angle C 32 deg. 24. min.

Autrement ſelon cette Regle vulgaire.

En tout triangle, comme le ſinus d'un angle a ſon côté oppoſite, ainſi le ſinus d'un autre angle a ſon côté oppoſite : Et au contraire.



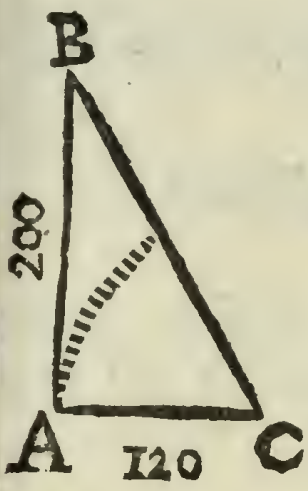
Partant,

Comme 5358 ſinus de l'angle C, à 25, (coſté A B oppoſite) ainſi 10000 ſinus de l'angle droit A au côté C B, de meſme 8443 ſinus de l'angle B, au côté C A, les regles de trois donneront les meſmes ſolutions que cy-deſſus, aſſez prés.

Demonſtration.

Soit C D egale à A B, deſquels comme Raids ſoient des points A & C faits ſes arcs B G & D F, puis D E perpendiculaire ſur C A, comme ſinus de l'angle C ou arc D F, & A B ſinus de l'arc B G, ou angle A.

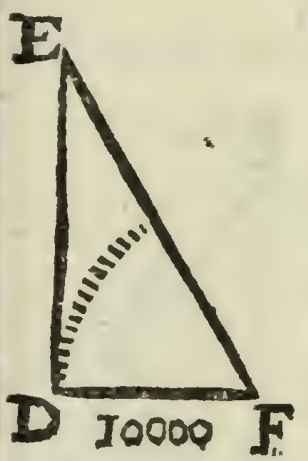
Donc (par la 4 du 6) comme D E ſinus de l'angle C, à D C (qui eſt A B ſon côté oppo-



opposite) ainsi A B sinus de l'angle droit A , a B C son côté aussi opposite.

Exemples , quand deux côtez & un angle sont donnez.

Soit du triangle A B C, l'angle A droit , les côté B A 200 , & A C 120 verges , on demande les autres angles & côté.



Soit à cette fin D E F le triangle des tables égal à A B C ; & posé que D F soit 10000 ; donc D E sera tangente de l'angle F ou C , le mesme se trouve comme s'ensuit.

A C *part.* D F A B

120 —— 10000 —— 200

ient pour D E 16667 parties , lesquelles herchées au tangentes , se trouvent corresondre au plus prés avec celle de 59. deg. 2 nin. qui est donc l'angle C , le mesme ôté e 90 deg. reste pour l'angle B 30 deg. 58 ninutes.

Le côté B C soit trouvé comme s'ensuit :

Part. D F *long.* A C *Secans* E F

10000 —— 120 —— 19435

120

388700

19435

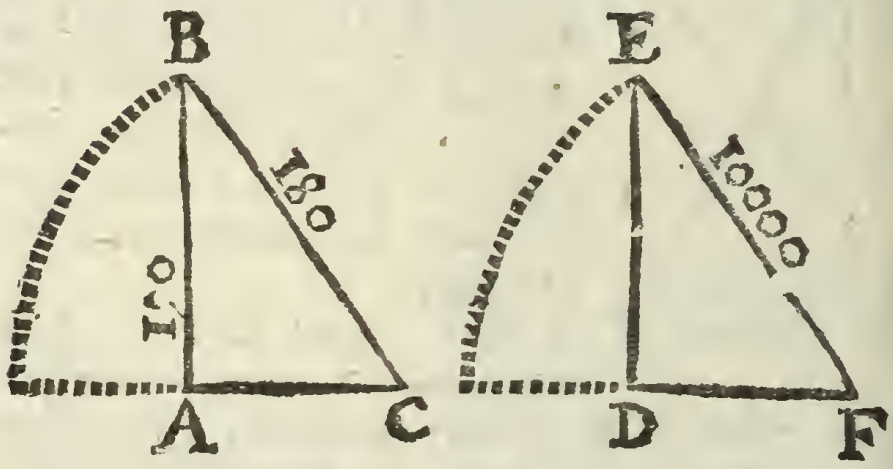
Vient le côté B C , 233|22 (2)

Autre-

quarré
40000 A B } Adjoutez
14400 A C }

Somme 54400 B C, dont la racine quarrée sera 233. 23 (2) étant un peu plus que dessus, pour B C.

Autre exemple.



Soit du triangle A B C l'angle A droit, le côté A B 150, & B C 180 verges, on demande les autres angles & côté.

Par les tables soit D E F à A B C égal, tellement que E F soit 10000, donc E D est sinus de l'angle F ou C, lequel on trouvera ainsi.

B C — *part.* E F — A B } viennent
180 — 10000 — 150 } 8333 parties

pour E D, le méme cherché entre les sinus, se trouve au plus prés correspondre à 56 d. 26 min. qui est donc la grandeur de l'angle

C

C, osté de 90 degrez reste 33. deg. 34 min. pour l'angle B. Le côté A C se trouvera ainsi.

part. E F — *long.* B C — *sinus* D F

10000 — 180 — 5529

5529
180

442320
5529

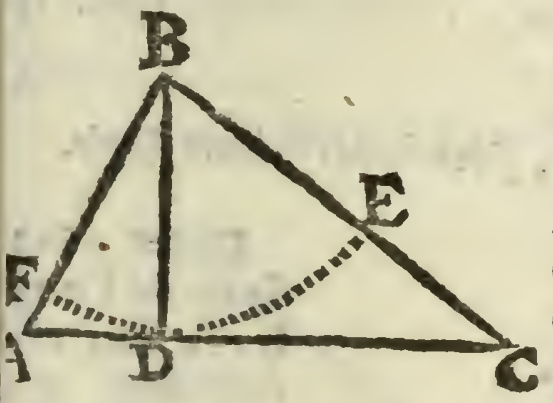
Vient pour A C 995220 (4)

Autrement par la 47. Propos. du 1 livre.

Quarré
32400 B C
Ostez 22500 A B

Reste 9900 A C, dont la racine quarrée sera comme dessus, un peu moins pour le costé A C

S'ensuit le *triangle Oxygone :* Et premierement aussi quand un côté & deux angles sont connus.



Comme de ce triangle A B C soit la base A C 500 verges, l'angle A 67 degrez 18 min. & C 38 deg. 54 min. on demande les autres côtés, & angle.

Il faut diviser le triangle par une perpendiculaire tombant d'un des angles à son costé opposite, en deux triangles Rectangles, comme icy par la perpendiculaire B D

en

en ces triangles Rectangles A B D & D B C.

Or si on pose B D leur côté commun pour le Raid 100000, faisant l'arc E D F alors A D sera 41831 tangente, & A B 108397 secante de l'angle A B D 22 deg. 42 min. par la 47 du 1.

Item, D C 123931 tangente, & B C 159245 secante de l'angle DBC de 51 deg. 6. minutes.

Donc on opere comme s'ensuit:

Tangentes
41831. A D
123931. D C

Base A C *part.* B D
165762 A C——500——100000 vient pour la perpendic. B D 301. 637 (3)

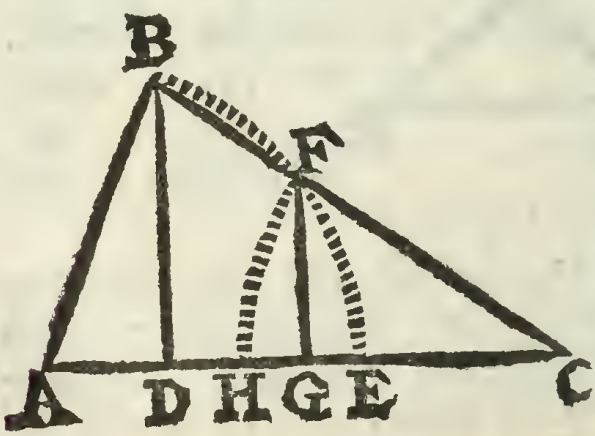
Part. B D *Long.* B D
100000——301637 (3)

Secantes
A B 108397
B C 159245

Vient pour le côté { A B 326. 965 (3) / B C 480. 342 (3)

Davantage si on adjoûte les angles trouvez A B D 22 deg. 42 min. & D B C 51 deg. 6 min. la somme, 73 degrez 48 min. sera l'angle B.

Autrement, selon la precedente Regle.



Cõme 96029 sinus de l'angle B, a son côté oppositе A C 500 (o) ainsi 92254, sinus de l'angle A, au côté B C & 62796 sinus de

le l'angle C, au côté A B, viendra pour
B C 480. 344 (3) & A B 326. 964. (3)

Demonſtration.

Soit C F égale à A B. En cette extence ſoient des points A & C deſcrits les arcs B E & F H, puis les perpendiculaires B D & F G, dont B D eſt ſinus de l'angle A, & F G ſinus de l'angle C.

Comme donc F C (qui eſt le côté A B) a F G (ſinus de l'angle C) ainſi le coſté B C, a B D (ſinus de l'angle A)

On trouvera B D *la prependiculaire ainſi,*

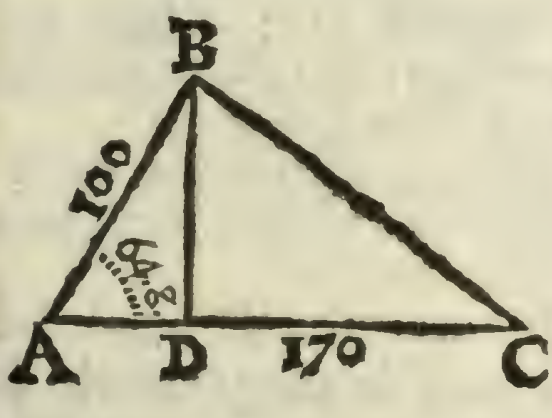
Sinus A B	*longueur* A B	*Sinus* B D
100000	326. 964 (3)	92254.

92254

1307856
1634820
653928
653928
2942676

Vient 301.637368 56 (8) perp. B D, comme deſſus.

Exemple, quand deux côtez ſont connus, & l'Angle qu'ils comprennent.



Soit de ce triangle A B C le côté A B 100, A C 170 verges & l'angle A 64 degrez; trouver les autres angles & côté B C.

Soit

Soit d'un angle inconnu sur son côté opposé, mené une perpend. B D, par laquelle le triangle soit mis en deux triangles Rectangles A B D & D B C, si donc de A B D le côté A B soit Raid 100000, donc B D (sinus de l'angle A) est 89879, & A D (sinus de l'angle A B D) 43837. Partant:

Parties A B A B — *Sinus* B D 89879, A D 43837 } Vient.

100000 — 100 —

Longueur
B D 89. 879 (3)
A D 43. 837 (3)

Or pour trouver l'angle C, soit osté A D de A C: Reste pour D C 126. 163 (3) lequel si on prend pour Raid, B D sera donc tangente de l'angle C. Partant:

D C — *Parties* — B D

126. 163 (3) — 100000 — 89. 879 (3)

Vient 71240 parties: qui se trouve au plus prés estre la tangente de 35. deg. 28. min. qui est donc la grandeur de l'angle C. Partant, par la 32 du 1. l'angle B fait 80 degrez 32. min.

Le côté B C on le peut trouver par la 47 du 1, ou plus briévement ainsi: Prenez D C pour Raid, donc B C sera secante de l'angle C, comme donc:

Part. D C — *longueur* D C — *secans* B C

100000 — 126163 (3) — 122782

Vient pour le côté B C 154. 905 (3)

Icy je ne puis laisser de mettre une Regle, par laquelle on peut trouver fort facilement les angles. Comme s'ensuit:

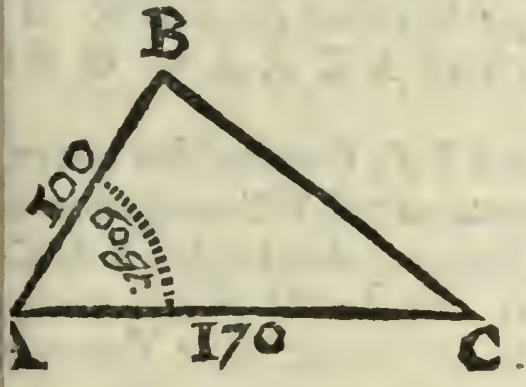
Comme la somme des deux côtés à leur difference, ainsi la tangente de la moitié

moitié des deux angles opposites à la tan-
ente de la difference entre chaque angle
t la moitié de leur somme.

Declaration par nombres au triangle A B C.

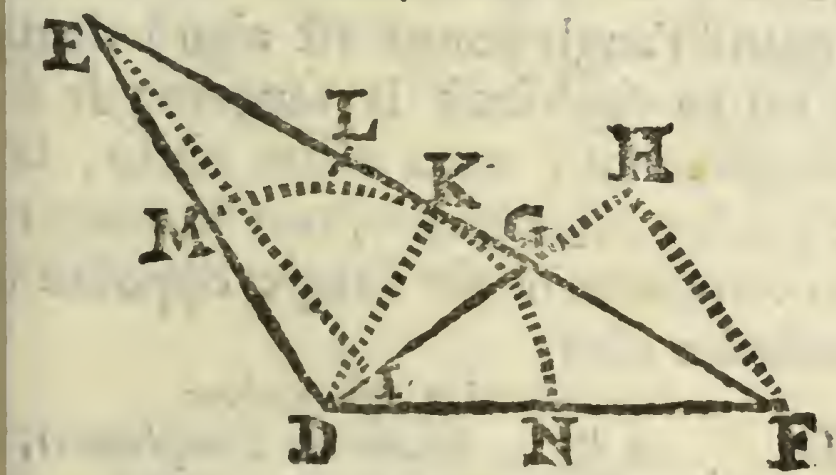
70 A C 170 A C *Tang. de* 58 *degr. la moitié*
00 A B 100 A B *des deux angles opposez* B *&* C
70 *somme*—70 *differ.*—160033

Vient 41490, qui est tangente de 22 deg.
2 min, estant la difference entre chaque



angle B & C, & la moitié de leur somme, partãt les mesmes 22 degrez 32 min. ajoustez à 58 degr. vient pour l'angle B 80 deg. min. & aussi ôtez de 58 deg. reste pour ngle C 35 degrez 28 min.

Demonstration.



Soit fait un triangle ysoscele E D F nt l'angle D soit égal aux deux angles B & , ascavoir la partie E D G égale a l'angle

B, & G D F à C, puis ſoit de D ſur E F tirée la perpend. D K, & en cétte diſtance hors de D fait l'arc M K N, puis ſur D G & des angles E & F les perpendiculaires E I & F H, duquel E I eſt ſinus de l'angle E D G ou B, & F H ſinus de l'angle G D F qui eſt C, leſquelles E I & F H ſont l'une à l'autre comme leurs côtez oppoſez A C & A B, qui eſt comme E G à G F, (par la 4 du 6) deſquel: K F (moitié de E G & G F) eſt tangente de la moitié de la ſomme de leurs angles oppoſez B & C, & L G difference de E G & G I repreſentent les côtez A C & A B, & K G la moitié de L G.

Partant, comme E F, ſomme des côtez, à L G leur difference, ainſi K F tangente de la moitié de la ſomme des angles B & C: K G tangente de la difference entre chaqu angle B & C, & la moitié de leur ſomme.

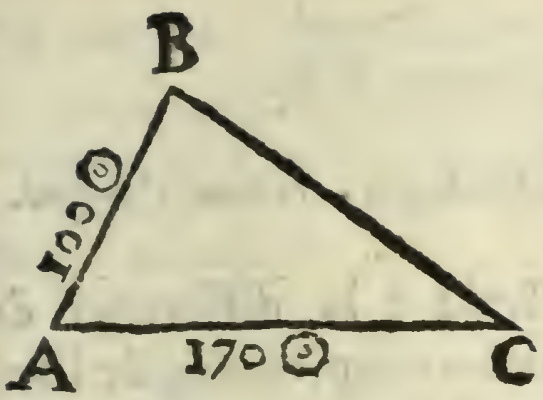
Autre Regle pour trouver les angles.

Comme le moindre au majeur de côtez donnez, ainſi la ſecante du complement de l'angle donné à un nombr (quand l'angle donné eſt aigu) duque ſi on en ſoubſtrait la tangente de ſo complement (mais eſtant obtus, fau adjouſter) viendra toujours la tangent du complement de l'angle oppoſite a moindre côté.

Declaration par nombres.

A B	A C	*Secans de Complemens.*
100 ——	170 ——	111260
Vient	189142	
	4 773	*Tang. des Complemens.*

R eſte 140369, Tang. de 54 deg. 32 m



Son complement eſt 35 degrez 28 minut. pour l'angle C, oppoſite du moindre coſté, & ainſi l'autre angle B ſera 80 deg 32 min comme deſſus.

Que ſi on requeroit le côté BC ſeulement, cela ſe pourroit faire par cette regle.

Comme le Raid au ſinus du complement de l'angle connu ; ainſi le double Rectangle des côtez donnez, à la difference, entre la ſomme de leurs quarrez, & le quarré du coſté inconnu.

Parquoy, ſi l'angle donné eſt aigu, la difference trouvée ſera oſtée : mais eſtant obtus, on l'adjouſtera à la ſomme des quarrez des côtéz donnez, le *produit* eſt le quarré du côté requis.

Declaration par nombres.

170 A C
100 A B

17000 *Rectang.*
2

Raid *Sinus de 26 deg.*
100000 — 43837 — 34000

34

175348
131511

Differ. 1490458 ſouſtr.
de 38900 quarré de A B & A C

Reſte 2399542 (2) quarré B C, dont

la racine quarrée eſt aſſez prés 154. 905 (3) pour le côté B C, comme deſſus.

Encore par une autre Regle, comme s'enſuit.

Comme le Raid à la difference du Raid, & ſinus du complement de l'angle donné, quand il eſt aigu, ou leur ſomme quand il ſera obtus, ainſi deux fois le Rectangle des côtez donnez, au quarré du côté inconnu, moins le quarré de la difference des côtez onnez.

Declaration par nombres, au precedent triangle aigu, A B C.

170 A C
100 A B

100000 17000 *Rectvn.*
43837 2

100000 — 56163 — 34000
34

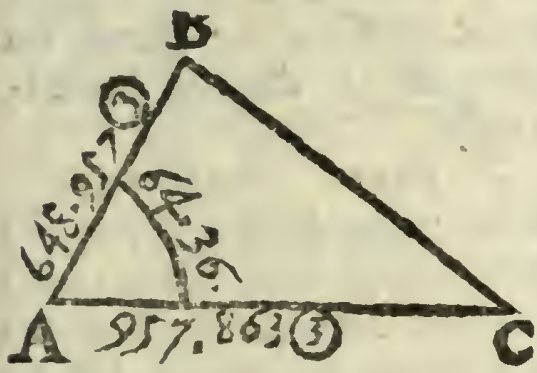
224652
168489

19095 | 42 (2)
Adjoûtez 4900 | quarré des differ.

Somme 23995 | 42 (2) quarré B C
la racine quarré eſt 145. 905 (3)
pour le côté B C, comme deſſus.

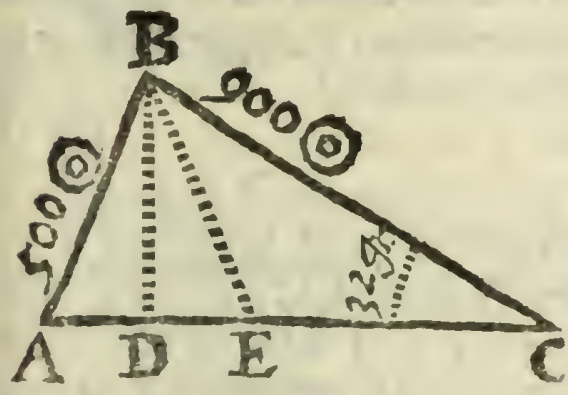
Autre

Autre exemple, qui eſt comme il ſe rencontre communement dans la pratique, pour exercer & diſtingueur par icelle la plus facile entre les Regles precedentes.



Soit d'un triangle ABC le côté AB 648. 957 (3) AC 957. 863 (3) & l'angle A 64 deg. 36 min. On demande le côté BC.

Exemple, où l'angle donné n'eſt pas entre les deux coſtez connus.



Soit de ce triangle ABC, l'angle C 32 deg. & les coſtez AB 500, BC 900 verges; on demande la baſe AC, les autres angles A & B, & le contenu du triangle.

Si on propoſoit ce triangle ſans dire ny tracer la figure, la ſolution ſera double, puis que les trois termes peuvent auſſi bien convenir dans un triangle obtus EBC (car AB & EB ſont égales, & le coſte BC & l'angle C eſt commun) & partant il pourroit advenir que la baſe ſeroit AC ou EC, pour l'angle oppoſite ABC, ou EBC, & puis l'angle A ou BEC: donc il falloit

ſçavoir ſi l'angle inconnu oppoſite au côté donné B C eſtoit *aigu* ou *obtus*.

Nous poſerons que l'angle ſuſdit A ſoit *aigu:* le triangle ſera donc A B C, duquel les choſes inconnues on trouvera cõme s'enſuit

Soit B C 100000, donc B D eſt 52992 (ſinus de 32 degrez) & D E 84805 (ſinus du complement, à ſçavoir de 58 degrez) mettez donc dans la Regle.

parties	B C	*ſinus*	*longueur*
100000—900	B D	52992	B D 476.93 (2)
	D C	84805	D C 763.24 (2)

Puis ſoit A B 100000, donc B D eſt ſinus de l'angle A, & A D ſinus de l'angle A B D, donc mettez

A B	*parties*	B D
500	100000	476. 93 (2)

Vient 95386 parties, qui ſe trouve eſtre le ſinus de 72 deg. 32 min. lequel eſt la grandeur de l'angle A; pourtant l'angle B eſt 75 degrez 28 min. Mettez donc

A B *ſinus* de 17. 28 (2)

100000—500—30015 | A D 150. 07
adjouſtez | D C 763.24

vient la baſe A C 913. 31

multipl. 913.31 (2) baſe A C
par 476.93 (2) perpend. B D

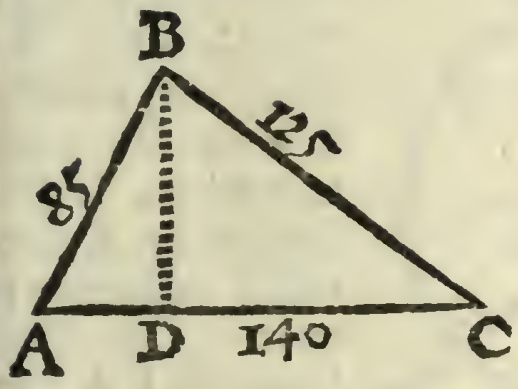
273993
821979
547986
639317
365324

4355849383 (4)

Vient 2177924691 (4) triangle A B C.

Exemple

Exemple d'un triangle qui a les trois côtez connus.

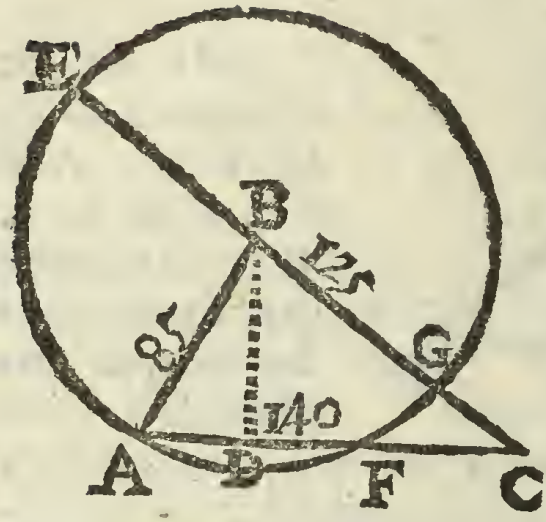


Soit de ce triangle A B C, le côté A B 85, B C 125, & A C 140 verges, on demande chaque angle à part.

Partissez le triangle par une perpendiculaire, tombante d'un des angles, en deux triangles Rectangles A B D & D B C, & cherchez leurs bases A D & D C, puisque donc de chaque triangle seront connus deux côtez & un angle droit, on trouvera les autres angles par le 2. exemple du triangle Rectangle.

Mais pour trouver A D & D C, cela se peut faire par la 13 prop. du 2 liv. d'Euclide, ou plus court par cette Regle.

De tout triangle, la difference des quarrez des côtez superieurs, est egale au Rectangle de la base, & de la difference des segmens d'un & d'autre côté de la perpendiculaire, tombant d'un angle sur la base.



Soit de B & de l'intervallé B A, faite une circonference, donc par la 6 du 2, le Rectangle de E C & G C, enſemble le quarré de B G (qui eſt B A) ſeront égaux au quarré de B C, pourtant le quarré de BA oſté du quarré de B C, reſte le Rectangle de E C & G C, ou (par la 36 du 3) le Rectangle de la baſe A C, & difference F C des ſegmens A D & D C d'un & d'autre coſté de la perpend. B D.

Declaration par nombres.

	15625	quarré B C
Oſtez	7225	quarré B A ou B G
Reſte	8400	Rectangle de E C & G C, ou de A C & F C.
	8400 | 60	Differ. F C, oſté de A C
Baſe A C	140 | 140	Reſte pour A F 80, qui eſt pour A D 40, & D C 100.

Puis que par la 14 du 6, A C eſt à E C, comme G C à F C, on peut former la precedente regle comme s'enſuit :

Comme la Baſe, à la ſomme des autres

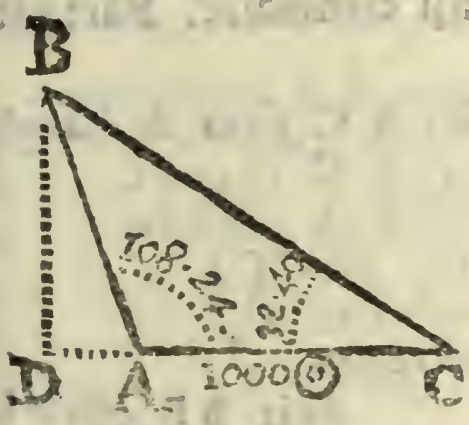
autres côstez, ainsi leur difference à la difference des segmens de la Base, d'un & d'autre côté de la perpendiculaire, tombant de l'angle opposé sur la base.

Declaration par nombres.

	125 BC	125 BC
Base AC	85 BA	85 BA
140	210 *somme*	40 *Difference.*

Vient de rechef pour F C 60, A D 40 & DC 100, comme dessus.

Des triangles Ambligones, quand la perpendiculaire tombe dehors le triangle.



Soit aussi premierement de ce triangle A B C connu un costé & deux angles, à sçavoir la Base AC de 1000 verges, l'angle A 108 deg. 24 min. & C 32 deg. 40 mi. On demande les autres costés, & la perpendiculaire B D, tombant de B exterieurement sur la base prolongée.

Puis que par la perpendiculaire sont faits deux triangles Rectangles D B A & DBC, si on prend BD pour 1000000, dont D A sera tangente, & B A secante de l'angle DBA, aussi DC tangente, B C secante de l'angle D B C, partant on mettra comme s'ensuit:

Tangens
1559655 D C
332656 D A A C *part.* B D

1226999——1000——1000000
Vient la perpend B D 814. 997 (3)

Partes B D B D *secans*
1000000——814. 997 (3) { BA 1053878, BC 1852707
longueur (3)

Vient pour { B A. 858. 907
B C. 1509.951

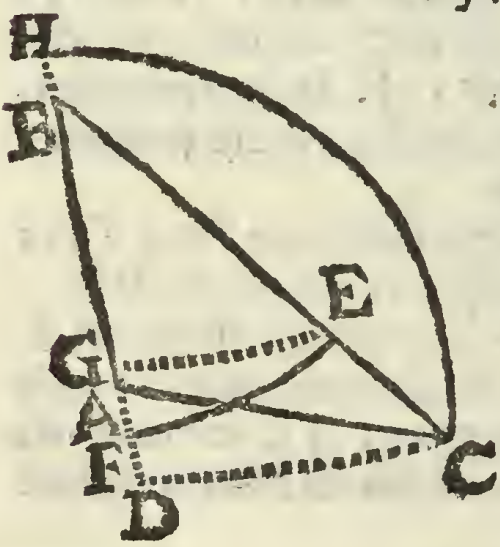
Autrement, pour trouver seulement le côté par cette Regle precedente.

Comme les côtés d'un triangle seront l'un à l'autre, ainsi les sinus de leurs angles opposez: & au contraire. Partant comme:

Sinus de l'Angle B *Côté* A C *sinus de l'angle*
628416——1000(0) { C 539751
A 948876

Côté { A B. 858. 907 (3)
B C. 1509. 949 (3)

Demonstration.

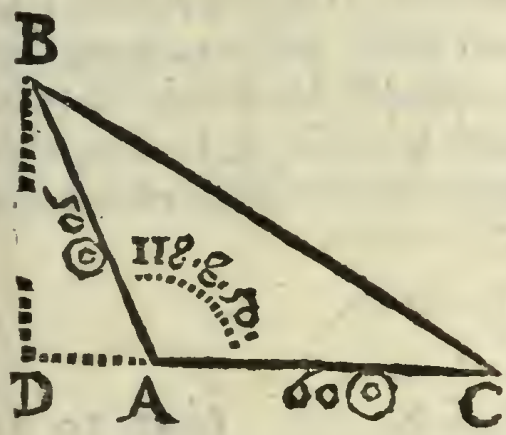


Soit B E égale à A C, de la méme intervalle & des points A & B, soient faits les arcs H C & E F, puis les perpendic. C D & E G, dont C D est sinus de l'angle A, ou de l'angle C A D, & E G sinus

nus de l'angle B.

Partant comme E G (sinus de l'angle B) à B E (qui est le côté A C) ainsi C D (sinus de l'angle A ou C A D) au côté B C ; & au contraire, par la 4 du 6.

Exemple de deux côtés connus, & l'angle qu'ils comprennent,



Comme de ce triangle A B C, soit le côté A B 50 (o) A C 60 (o) & l'angle A 118 deg. 50 min. On demande le côté BC ; & les angles B & C.

Ayant mené B D perpend. sur la base prolongée, on aura deux triangles rectangles ABD & DBC, puis donc de A B D deux angles & le côté AB seront connus : les autres côtés B D & D A, on les trouve par iceux ainsi

Parties	A B *Sinus*	*Longueur*
100000 —— 50	87603	B D 43,801
	48226	D A 24. 113

Or adjoûtez D A à A C, vient D C, laquelle prenant pour Raid, B D sera donc tangente, & B C secante de l'angle C, lors on trouvera les angles, & le côté B C comme s'ensuit.

D C *parties* D B

84113 (3) —— 100000 —— 43. 801 (3) vient 52074, tangens de 27 deg. 30 min. qui est

donc l'angle C, & par la 32 du 1 l'angle B 33 deg. 40 min.

parties DC *Secans de* 27. 30

100000——84113 (3)——112738 vient le coſté BC 94. 827 (3)

Mais ſi on doit avoir les angles ſeulement, on mettra par la Regle precedente, comme s'enſuit:

Comme 110, ſomme des coſtez AB & AC, à leur difference 10, ainſi 59101, tangente de 30 deg. 35 min. qui eſt la demie ſomme des angles inconnus B & C, à la tangente de la difference entre chaque angle inconnu & la moitié de leur ſomme.

Operation.

60 AC 60 AC

50 AB 50 AB *táng.* 30. 35

110——10——59101

Vient 5373, qui eſt la tangente de 3. deg. 5. min. Partant icelle adjouſtée à 30 degrez 35 min. vient 33 deg. 40 min. pour l'angle B, & oſtée de 30. deg. 35 min. Reſte pour l'angle C 27 degr. 30 min. comme deſſus.

Ou autrement comme s'enſuit:

ſecans de 28 *deg.* 50 *min.*

AB AC *Complement de l'angle connu* A

50——60——114152

Vient le produit 136982

auquel adjouſté 55051 tang. du compl. de l'angle A——

Somme 192033 tangente de 62 deg. 30. min. qui eſt le complement de l'angle C, pourtant l'angle C ſoppoſé

opposé au moindre costé A B) est 27 deg 30 min. & l'angle B (opposé au majeur costé A C, 33 deg. 40 min.

Mais si on veut chercher seulement le côté B C, on mettra par une des Regles precedentes, comme s'ensuit:

Comme 100000 Raid à 48226, sinus du complement de l'angle connu, ainsi 6000, deux fois le Rectangle des costez connus à la difference entre la somme de leurs quarrez, & le quarré du costé requis:

60 A C
50 A B

Sinus de 28. 50 — 3000 *Rectang.*
Raid *Compl. de l'angle connu* A — 2

100000 — 48226 — 6000
Vient prod. 2893|56 adjousté
à 6100 | quarrez de A B & A C

Somme 8993|56 (2) qui est le quarré du costé B C, la racine, à sçavoir 94. 834 (3) sera le costé B C, à peu pres, comme devant.

Encore par une autre Regle precedente.

Comme 100000 Raid à 148226 (somme du Raid, & sinus du complement de l'angle A) ainsi 6000) deux fois le produit des costés connus) au quarré du costé requis, moins le quarré de la difference des costez connus,

60 A C
50 A B

100000 *Radius* 3000 *produit*

48226 *sin.* 28. 50.

Radius

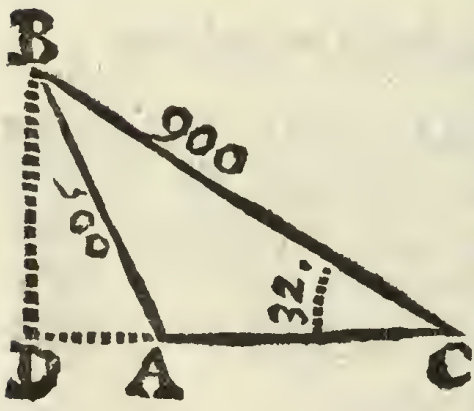
100000 —— 48226 —— 6000

Vient le prod. 8893|56 (2)
auquel adjouſtez 100 quarré de la diff.
de A C & A B
Somme 8993|56 (2) quarré du côté A B, dont la racine eſt 94. 834 (3) pour le côté A B comme deſſus.

Autre exemple, comme il ſe rencontre communcment en la pratique.

Soit de ce triangle ABC, l'angle A 112 deg. 37 mi les côtés A B 987. 639 (3) & A C 879. 647 (3) On demande les autres angles, & le côté B C.

Exemple, quand deux côté ſont donnez, & l'angle qu'ils ne comprennent.



De ce triangle ambligone A B C ſeront les côtés A B 500, B C 900, & l'angle C 32 deg. On demande les autres angles, la baſe A C, & la ſuperficie du triangle.

Operez

Operez comme s'enſuit.

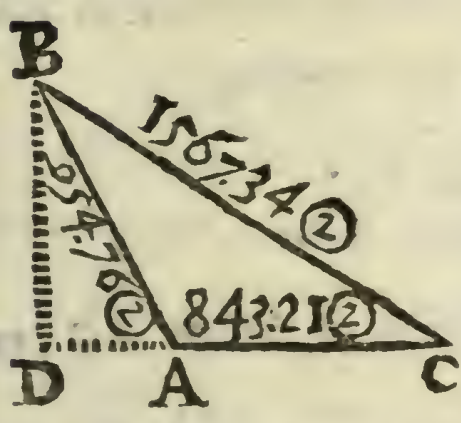
Sinus de D *Côté* BC *ſinus* (3)

1000000——900 { 529919 | 476. 927 BD
848048 | 763. 243 DC

Puis AB 500, donne 1000000, ſinus de l'angle D, combien BD 476. 927 (3) viendra 953854: ce que dans la table on trouve eſtre le ſinus de 72 deg. 32 min. qui eſt la grandeur de l'angle B A D, pourtant l'angle obtus B A C ſera 107 deg. 28 min. & l'angle B 40 deg. 32 min.

ſinus de D *coſtez* A B *ſinus de l'angle* D B A
1000000——500——300151 vient pour DA 150. 075 (3) oſté de DC 763. 243 (3) Reſte 613. 168 (3) pour la baſe A C, & conſequemment le contenu du triangle A B C 146218. 1874 (4)

Exemple de trois coſtez connus, pour par icelle trouver ſes angles.



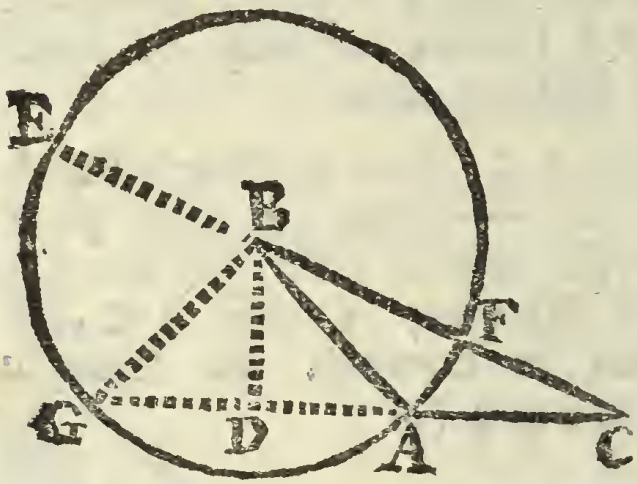
De ce triangle, obtuſangle A B C, ſont les trois côtés connus, à ſcavoir B C 1567. 34 (2) B A 954. 76 (2) & A C 843. 21 (2) On demande les angles en particulier, & le contennu du triangle.

Aprés que par la perpendiculaire B D ſeront faits les deux triangles Rectangles DBA, & DBC, ſoit trouvé D A par la 12 du 2 livre, ou plus bref par cette Regle.

Au

Au triangle Amblygone, la difference des quarrez des côtez superieurs est egale au Rectangle de la base, & la base ensemble deux fois la partie prolongée entre l'angle obtus & la perpendiculaire.

Demonstration.



Car puis que par la 6 prop. du 2, le quarré B C est égal au Rectangle de E C & F C, ensemble le quarré de B F (qui est le costé B A) si donc on oste le quarré de BA du quarré BC, Reste le Rectangle, de E C & F C, qui est (par la 36 du 3.) le Rectangle de G C & AC

Declaration par nombres.

(4)
24565546756 quad. B C
9115666576 quad. A B

154498801800 *Rectangle de* E C *&* F C, *ou de* G C *&* A C.

(3)
div. 154498801800 (5) (1832270 G C
par A C 84321 (2) (84321 A C Sub.

980060 G A

vient pour D A 494530

Autre-

Puisque par la 14 du 6 les costez des Rectangles E C avec F C, & G C avec A C ont une proportion reciproque, s'ensuit donc cette Regle.

Au triangle Ambligone, comme la base, à la somme des autres costez, ainsi leur difference, à la base avec deux fois la partie prolongée entre l'angle obtus, & la perpendiculaire tombant de l'angle au sommet.

Explication par nombres.

(2)

	1567	34 B C	1567	34 B C
Base A C	954	76 B A	954	76 B A

84321 (3)——2522|10 *somme* 612|58 *diff.*

Vient pour G C 1832|270 (3)

Ostez A C 843|21

Reste G A 985|960

qui est pour D A 494530 cõme dessus.

Maintenant trouvez les angles comme s'ensuit

A D *partes* A B

494530 (3)——1000000——954.76 (2)

Viendra 1930641, qui est 240 parties plus que secante de 58 deg. 48 min. pour l'angle B A D, lesquelles augmenteront ce nombre d'environ 16 secondes; ce qu'on trouve comme s'ensuit :

secans

Secans

1931329. 58. 49 — 1930641

1930401. 58. 48 — 1930401

secondes

differ. 928 — 60 — *differ.* 240

Vient 16 secondes; pourtant l'angle B A D fait 58 deg. 48 min. 16 second, & l'angle obtus A 121 deg. 11 min. 44 second.

D C — *parties.* — B C

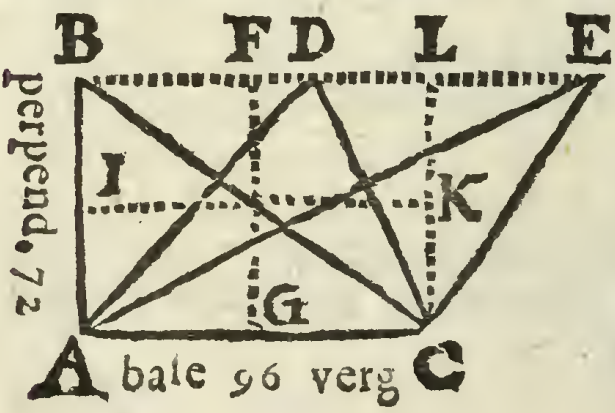
1337. 74 (2) — 1000000 — 156734 (2)

Viennent 1171633 parties, qui est la secante de 31 deg. 24 min. 16 sec. qui est la grandeur de l'angle C; donc par la 32 du 1, l'angle B sera 27 deg. 24 min. 0 sec.

Comme ainsi soit qu'en la pratique communement le but est de parvenir par les lignes trouvées à la grandeur du triangle: si est-ce que telle grandeur on peut trouver en deux manieres. La premiere est, par la base & hauteur du triangle; & la seconde, par les trois côtez.

Premiere Regle.

Multipliez la base par la moitié de la hauteur, ou la hauteur par la moitié de la base, le produit est le contenu du triangle.



Le fondement est la 41 proposit. du 1 livre d'Euclide, à sçavoir que le parallelogramme fait de la base, &

: moitié de la hauteur : ou de la hauteur, : moitié de la baſe d'un triangle, eſt toûours égal au triangle.

Comme icy des triangles égaux A B C, A D C, & A E C (par la 37 du 1) eſtant eur commune baſe A C, leur hauteur la erpend. A B.

Puisque (par la 34 du 1) A B L C eſt le louble de A B C, & conſequemment de haque triangle, donc chaque triangle eſt égal à la motié de A B L C, qui ſont les ſuſlits parallelogrammes ABFG, & A H K C.

Et comme par la 16 diff. du 7 livre, le contenu de chaque parallelogramme eſt la multiplication de la longueur par ſa largeur, pourtant le méme produit eſt auſſi le produit de chaque triangle.

Declaration par nombres.

96 Baſe A C — 72 Hauteur A B
36 AH: moit. de AB — 48 AG: moit. de AC

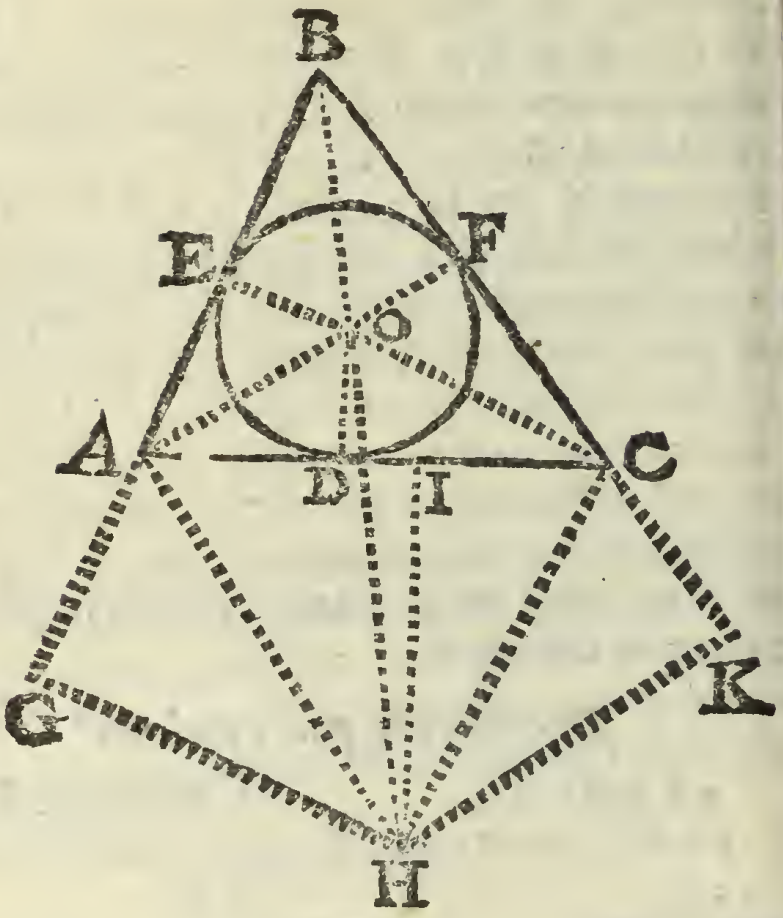
576 — 576
288 — 288

3457 égal à 3456 contenu d'un des parallelogrammes ABFG, ou AHKC: Ou un des triangles A B C, A D C ou AEC.

L'autre Regle, qui eſt pour trouver le contenu d'un triangle, par l'aide des trois coſtez.

Adjouſtez les trois coſtés, de la moitié de la ſomme, oſtez chaque coſté à part, les trois reſtes, enſemble la ſuſdite moitié des coſtés, multipliez par enſemble. la racine quarrée du produit ſera le contenu du triangle.

Demon-

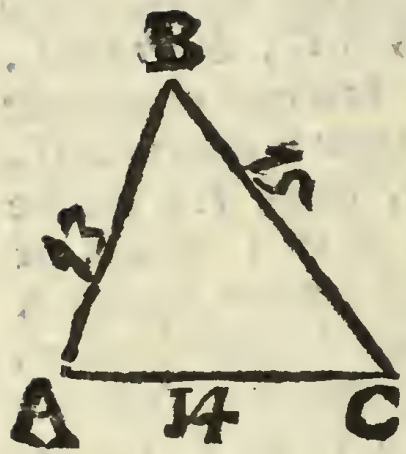


Soit inſcrit un cercle dans le triangle A B C, & du centre juſqu'aux angles les lignes O A, O B, O C, & ſur les côtez les perpendiculaires O D, O E, O F (qui ſont auſſi demydiametres) donc A D ſera égal à A E, B E à B F, & C F à C D, puis ſoit B A & B C prolongé, en ſorte que A G ſoit égal à D C, & C K, à A D, donc B G (ou B K) ſera égal au demy circuit du triangle A B C, pourtant le meſme multiplié par O E, vient le triangle A B C: auſſi comprend B G les trois differences B E, E A, & A G; entre chaque côté & la moitié de leur ſomme

donc

donc soit tiré GH, perp. sur B G, & K H sur BK, qui se rencontrereront au prolongé B O, & soit fait AI égal à A G, & tiré HI, le mesme est égal à HG, veu que chacun de leurs quarrez est moindre que le quarré AH, du quarré A G, ou A I, donc H I tombe perpendiculairement sur A C ; pourtant dans le trapeze HGAI, les deux angles A & H ensemble seront égaux à deux droits, comme aussi dans le trapeze A E O D les angles A & O, donc par la 13 du 1, les angles GHI & EAD seront égaux, comme aussi leurs moitiés G H A & E A O.

Puis donc que les triangles G A H, & A E O sont semblables, le rectangle de E O, & G H est égal au rectangle de E A, & A G (par la 16 du 6) or B E est à B G, comme EO à G H (par la 4 du 6) ou comme le quarré EO au rectangle de EO & GH, ou de EA & AG (par la 1 du 6) pourtant (par la 16 du 6) le produit de B G par le quarré E O, est égal au produit de G A, & A E par E B, (qui sont les trois differences) chacun des mesmes produits multiplié par B G, (moitié des trois costez) vient d'une part le produit du quarré E O par le quarré B G, égal d'autre part au produit des trois differences G A, A E, E B par le mesme B G; donc si on extrait la racine quaré de ces produits égaux, vient le rectangle de B G & E O, qui est le contenu du triangle A B C.



Soit d'un triangle A B C, le côté A B 13, A C 14, & B C 15 verges : on demande le contenu d'iceluy triangle.

Côtez { 13 A B / 14 A C / 15 B C } Adjouſtez

42 ſomme.

21...21...21 Moitiez
13...14...15 Côtez, ôtez

8...7...6 —— Reſte
7

56
6

336 produit des trois Reſtes
21 moitié de la ſomme des côtez.

336
672

La racine 70 | 56 dernier produit
8 | 4 contenu du triangle A B C.

FINIS.

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